MCESA REIL
Data Verification Tool
24981 – REILSLDS13

MCESA REIL Data Verification Tool (DVT) Project Requirements

Table of Contents

1 Purpose & Background

By working in collaboration, ADE and MCESA will design, develop and deploy an application which will display evaluation/observation performance related data on Educators and Administrators, Value Added Student Growth data, student-teacher connection , roster verification, Teacher, Leader, Superintendent and HR access to view REIL Score personnel classifications and component scores, including audit/management of workflow completion.

1.1 Purpose

The Maricopa County Education Service Agency (MCESA) has undertaken a five-year initiative aimed at improving student learning and achievement by increasing the effectiveness of teachers and principals. Several alliance school districts in Maricopa County are engaged in the Rewarding Excellence in Instruction and Leadership (REIL) initiative, which is funded by a Teacher Incentive Fund grant from the U.S. Department of Education.

The purpose of this project is to provide integration and visibility of data from multiple sources, both within the ADE family of applications and hosted vendor solutions, to meet the needs of the REIL initiative. The DSRS must meet 2012-2013 end of school year teacher data and student roster validation requirements and 2013-2014 beginning of school year payout requirements in order to provide educators visibility into certain components of their overall evaluation process.

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The original requirements were collected and defined in the DMAR Business Requirements Documents ("DMAR") as a result of a series of meetings and follow-up interviews with MCESA business owners and stakeholders that occurred in late winter of 2011 into the early spring of 2012 (i.e., "DMAR BRD"), then the summer (e.g., Track "A" and "Teacher Data Verification"), and again in the fall (i.e., "DSRS"); reviewing and analyzing previously created project documentation posted on the MCESA REIL SharePoint site; additional follow-up email correspondence, and multiple ADE internal reviews of the BRDs. A number of the relevant requirements were carried forward and included in this document in more detail. Additional requirements were identified and documented in December in subsequent meetings and discussions with key MCESA personnel.

The check marked option below indicates the type of requirements and overall purpose of this documentation:

- ☐ Requirements for major enhancements to an existing application
- ☒ Requirements for new application development
- ☐ Requirements for replacement application development
- ☒ Requirements for a request for information (RFI)
- ☒ Requirements for a request for proposals (RFP)

1.2 Background

In 2010, the state of Arizona passed legislation to create a new statewide data system known as the Arizona Education and Learning Accountability System (AELAS). A central component of this new statewide system is an Instructional Improvement System (IIS) which is being implemented first in MCESA to use data to increase educator effectiveness and student achievement. IIS is comprised of a

Content Management System, Learning Management System, Assessment System, Observation System, and Professional Development System.

The IIS will also play a key role in supporting statewide implementation of Arizona's Common Core Standards (ACCS) which requires a massive realignment of student content to these new standards, creation of new PD content for educators, development of new lesson plans, and expanded curriculum resource management needs. The key to enabling an effective IIS is the development of a Data Verification Tool (DVT) to consume instructional-related data from multiple IIS systems and make it available to groups of users such as teachers, building administrators, superintendents, HR administrators, and county level administrators in order to manage a consistent business process workflow of data verification, approval and resolution of discrepancies.

This project continues the build-out and progression from the "Track A Project" delivered during the summer of 2012 for demonstration purposes only to the U.S. DOE.

2 Problem Definition & Scope of Work

2.1 Problem Definition

There is no integrated data management system solution currently in place today to collect and store the data that provides visibility and verification capability to performance and assessment data for education professionals as well as determining education professional classifications and incentive pay awards as mandated by the REIL Grant Program. The data management system solution must be implemented to meet the needs of the requirements due by the dates as specified in the REIL grant.

In addition to the REIL grant, there are two other drivers of organizational change. Note: See Appendix B – Benefits Dependency Network Model and Appendix C – Benefits Analysis for further details.

The challenge with data verification capability, which includes tracking and monitoring the resolution of inquiry submissions arising from verification discrepancies or questions, is that it is not typically delivered from a data warehouse environment as MCESA is requesting in the DSRS project. Another challenge is that there is other information that needs to be managed and included in this verification process that is not available in any other system or application and thus the solution needs to provide this capability. A data warehouse typically only exposes data collected in a central repository from various education systems across the entire ADE organization for reporting using business intelligence tools. Ideally, "data verification" should actually occur, when and where possible, in each system where the data is owned and originally mastered (i.e., "its single source of truth") before it feeds into a data warehouse environment.

Verification requires a response by each User for each data point requiring this check of whether it is 100% correct (i.e., "submit an approval of acceptance") or when there is a potential discrepancy or question (i.e., "submit an inquiry"). Data is collected from numerous systems, combined, and then used to calculate what is known as the REIL Score. Since a third party vendor, Basis Research, performs the REIL score calculation in the 2012-14 school years, it is not available for review and verification until the data feed is actually loaded to the data warehouse, which is scheduled for mid to late summer of 2013. The solution needs to manage and track, and report on all data approvals and inquiry submissions until they have been resolved.

Ideally, each Education Professional should have the ability to review and either change or correct their own data or alternatively a person with appropriate authority with access to do this on their behalf.

REIL Grant Program

- A data management system so that ALL teachers and principals will use data to inform and improve instruction (Objective 1.1)
- Performance pay for effective teachers and principals by providing differential and substantial compensation based on demonstrated performance (Objective 2.1)

2.2 Scope of Work

The deliverables and work products for this project are identified and listed in either of the following sections as "in scope" or "out of scope" for this project:

2.2.1 In Scope

- REIL school districts (i.e., REIL, REIL-TNG, REIL Extend), except where noted in out of scope.
- The capabilities delivered by this project will be made available to Teachers, Coaches, and Building Administrators at the schools, Superintendents and HR Administrators at the LEAs, as well as Agency Administrators at MCESA and System Administrator at the ADE based upon the data for the school year 2012-13.
- Data verification of teachers assigned to each school; career pathway designation; teachers assigned to each coach; demographics; and for each course/section the teachers assigned and for each student in the roster, the amount of instructional time attributed to each teacher, if applicable; as well as the REIL score. Items requiring data verification may need to be entered or selected in DVT unless it is determined that the information can be provided by another system for: teaching assignment and associated student roster, instructional time, teachers' assigned to a principal, and teachers' assigned to a coach. In addition, each teacher will be assigned to a "team" of colleagues for the team portion of the value-added score which requires that a teacher not only verify their student roster (for the individual VAM), but their assignment to a team as well (for the team VAM).
- Capabilities in support of workflow business processes and routing of approvals and inquiries from submission to resolution to closure.
- Compliance with Data Governance and CEDS/Ed-Fi data standards that have been adopted by the ADE.
- Data verification progress and tracking reports

2.2.2 Out of Scope

- REIL Alliance school districts Laveen and Arizona Department of Juvenile Corrections and all non-REIL school districts for 2012-13 school years.
- Calculation of REIL score which will be performed by BASIS Research up until the 2014-2015 school years, when it becomes "in Scope" as Basis will no longer be doing this calculation.
- Visibility to the REIL scores calculation formula.
- Data management feeds from various systems collected as per the DSRS project for use by DVT:
    - HQT and HR (i.e., demographics, certification, and HR information),
    - Student-Teacher-Course Connection (i.e., student-roster data)
    - Observation Data Capture Tool and Truenorthlogic (i.e., completed observations for teachers, principals, and coaches),
    - Assessment (i.e., completed assessment tests from ADE R & E (i.e., AIMS, AZELLA) but originated from Pearson, Galileo, MCESA Group B, etc., and
    - BASIS Research (i.e., calculated and corrected REIL Scores).

3 Team Members

Type	Name	Role	Contact Information
ADE Information Technology	Christa Thompson	ADE Program Manager	Christa.Thompson@azed.gov
	Niranjan Dravid	Project Manager	Niranjan.Dravid@azed.gov
	Rich Schnettler	Business Analyst	Richard.Schnettler@azed.gov
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	Ellen Grein-Bell	Data Architect/SQL Developer	Ellen.Grein-Bell@azed.gov
	Robert Zimmerman	Data Analyst	Robert.Zimmerman@azed.gov
MCESA	Al Dullum	MCESA Program Manager	al.dullum@mcesa.maricopa.gov
	Laurie King	SME	Laurie.King@mcesa.maricopa.gov

4 Project Description

4.1 Description

The key capabilities to deliver with the DVT are the following:

- System Setup and Configuration
- User Account, Access, & Permissions Management (From IMS)
- Management of Instruction time, teaching team assignments, and coach-teacher assignments
- Data entry, data verification, approval or inquiry submission for each of the following discrete data points except where noted (Same as DSRS Reports):
  - Teachers assigned to an Evaluator (e.g., principal, assistant principal)
  - Career Pathway
    - Teachers optionally designated as “master educator”, “in demand” or as a “turnaround teacher”
    - Principals optionally designated as “turnaround principals”
  - Teachers assigned to a Coach
  - Demographics
  - Student Roster data for each course/section assignment including attributable instructional time which will need to account for situations such as job sharing, co-teaching, etc.
  - REIL Score
- Alerts and Notifications

4.2 Rationale

The REIL grant program has three overarching goals and nine aligned objectives which guide the alliance members' efforts to implement a sustainable Performance-Based Management System. One of the nine objectives will contribute towards the realization of the goals of the REIL grant program in this project:

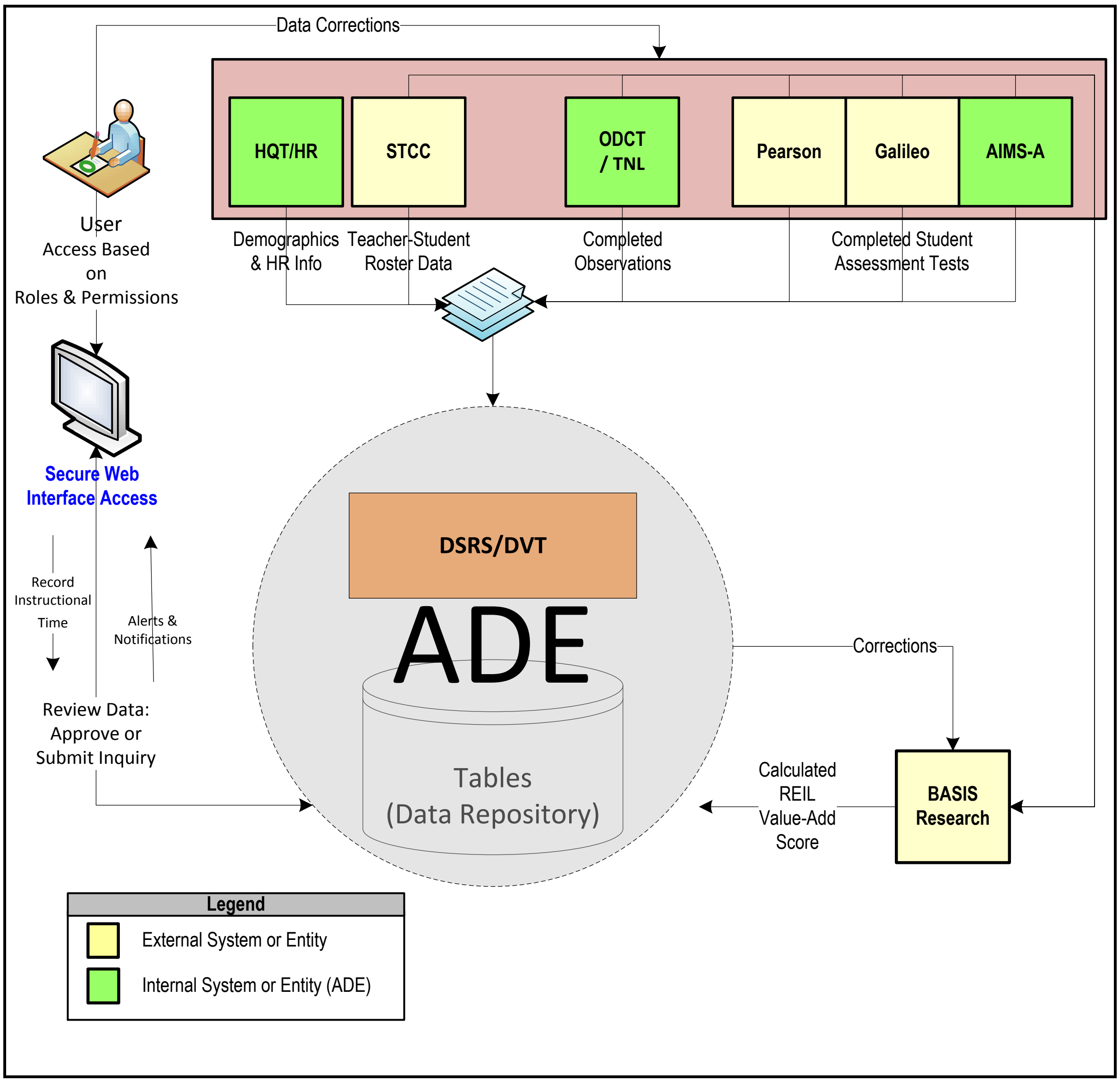
- Enhance careers for effective teachers and principals by implementing a fiscally sustainable Performance-Based Compensation System.

The rationale and benefit of implementing DVT is that it will provide LEAs with the tools and capabilities by which they can view integrated data from several systems that will aid in the effective achievement of the REIL grant program objectives. But DVT alone cannot achieve the overall objectives, as it needs to interface with other systems to deliver a total solution as articulated in the REIL grant.

4.3 Environment

The diagram in the figure below depicts a high-level view of the proposed DSRS/DVT environment based upon the scope of this project and the context of the internal and external interfaces with other systems. The diagram also provides limited insight into some of the fundamental user interactions and data exchanges between systems.

Figure 1 - Proposed DSRS/DVT Environment



4.4 User Characteristics

The following is a list of known user types that are expected to interact with DVT.

The Users may be physically located in schools, school district offices, as well at the MCESA office. An Evaluatee, especially a teacher, is expected to have limited access to the features and functions available on the site as opposed to an Evaluator. Generally speaking, it is expected that the LEA Administrators will require a higher-level and more extensive training program in the use of this new application.

The following table describes the Users identified, a description of the anticipated interactions and/or permissions, the skill level and their expected role. Skill level for each User is ranked high for requiring a significant amount of knowledge and skill to interact with the functionality; medium for a mid-level knowledge, to low, for a relatively small amount of knowledge and skill. The reason for the skill level rating is to aid in the planning and definition of a system training program as well as define a help system to adequately cover all of the Users that will potentially interact with the system.

Super Users are expected to require more system training as compared to the other users. Each User in the table below is grouped by role ranging from the least to the most access to features and functions available.

User(s)	Description	Skill Level	Role(s)
			BASIS Admin
BASIS Research Employee	• Receives student assessment test data from TNL, Galileo, etc. as well as other data to calculate the REIL scores • Processes adjustments to data used to calculate the REIL score and provides file to DVT via DSRS	Not applicable	
			Education Professional
• Teacher • SPED Teacher • Coach • Building Administrator	Verifies data points, and either approves and accepts, or submits an inquiry as applicable for their role or position: • Demographics (All) • Course/section assignments (Teacher) • Student roster data (Teacher) • REIL Score and components (All) • View teachers assigned to team (Teacher) • View teachers assigned to coach (Coach) • View teachers assigned to principal (Principal) • Enters data, views DVT reports, and/or views data for subordinates as applicable for their role or position	Low	Evaluatee
• Building Administrator • Superintendent	• Confirms data points verified by subordinates and either approves and accepts, or submits an inquiry	Medium	Evaluator

User(s)	Description	Skill Level	Role(s)
	• Analyzes and facilitates resolution of inquiry submissions from an Evaluatee and/or promotes to an LEA Administrator • View DVT reports for subordinates as applicable for their role or position		
			LEA Administrator
• HR Admin	• Analyze and facilitate resolution of inquiry submissions from an Evaluatee promoted by an Evaluator • Authorizes REIL awards • View DVT reports for subordinates as applicable for their role or position	High	
			Agency Admin

Educational Service Agency Employee or Equivalent	• Manage overall site setup and configuration options
	• View DVT reports for subordinates as applicable for their role or position
	• Access and visibility to the following items are subject to the level of the organization hierarchy for the logged in User:
	    ○ Manage user accounts, roles and permissions
	    ○ Visibility to any User Account in the system including reports
	    ○ Open/Close evaluation periods
	    ○ Close inquiry items
	    ○ Manage Inquiry queue
	• Access and view analytics data
		High	

			Super User
ADE Administrator	• View DVT reports for subordinates as applicable for their role or position • Archive Data Note: It is highly recommended that the assignment of this role should be very limited.	High	

4.5 General Constraints

ID	Constraint
4.5.1	The currency of data that is collected from various systems via DSRS and made available to DVT is dependent upon its collection frequency.
4.5.2	The product solution should provide the minimum level of Section 508 Compliance (Rehabilitation Act of 1973) that is sufficient for its potential User's.

4.6 Assumptions and Dependencies

4.6.1 Assumptions

This section describes major assumptions that were made for this project at this point in time.

ID	Assumption	Implications
4.6.1.1	Any system identified in this document as a "single source of truth" will need to be confirmed by the Enterprise Architecture team.	Without confirmation by the EA team, it would not be possible to be 100% certain that the correct data is being collected.
4.6.1.2	DVT must be implemented and data (i.e., demographics, student-roster, teaching team membership, coaching assignments, REIL scores, etc.) made available from each of the various systems via DSRS by May 1, 2013.	Without the full implementation of DVT capabilities and data from DSRS then it will not be possible to begin the rollout of the new workflow to manage the approval and disbursement of REIL performance awards.
4.6.1.3	The maintenance of the accuracy and currency of data is managed by the system (e.g., HQT, ODCT/TNL, AIMS, etc.) that originally masters the data as its "single source of truth" rather than by DVT or DSRS.	Data discrepancies must be corrected within the originating system and then fed to DVT thus potentially delaying the approval process. Additionally, without accurate and current data, any analysis and calculations using this data could lead to incorrect conclusions. Incorrect data may also impact the REIL Score and REIL Payment.
4.6.1.4	An accurate, reliable, and certified link between each Student, Teacher, and Course combination will be provided by schools from STCC which is stored in the SRM database.	If the student-teacher-course link is not created then the student-roster data cannot be verified for each course assignment and nor can the teaching teams and instructional time be recorded.
4.6.1.5	Hardware and infrastructure and reporting tools are already available.	If hardware and infrastructure are already in place, then they can be leveraged for DVT otherwise it will be necessary
4.6.1.6	It may be necessary to pre-define and configure the workflow that supports the REIL Data Verification business process in phase 1.	It may not be possible to deliver a full set of workflow management tools in order to achieve the desired delivery date.
4.6.1.7	Requirements defined in this document take precedence over those in the DSRS BRD if they are also referenced there.	To avoid confusion, any redundancy in requirements definitions found in both the DSRS and DVT BRD, will apply this precedence rule since DVT BRD was prepared later in the discovery phase and may contain more details.

4.6.2 Dependencies

This section describes dependencies between the DVT for which these requirements are written and other systems, databases, and/or processes.

ID	Dependency
4.6.2.1	An Identity Management System (IMS) solution is in place that supports the management of User accounts, roles, and permissions and supports single sign-on interoperability.
4.6.2.2	DVT will rely on a periodic collection and load/refresh of the most current collected data and made available in DSRS from the various systems. Note: See DSRS BRD for details.

4.7 Project Risks

This section describes the identified risks to success as determined during the course of requirements gathering and definition. The business may already be aware of some of these, but they will be listed here as a reminder and confirmation of DVT and ADE Information Technology teams' awareness, even if the current status is "Retired".

ID	Project Risk	Implications	Severity	Status
4.7.1	DSRS/DVT Integration and infrastructure readiness	If hardware, infrastructure and integration pathway is not in place with data loaded, then it will need to be built.	High	Open
4.7.2	IMS not implemented	If IMS is not implemented then additional capabilities will need to be designed and delivered to support DVT. Note: Refer to Section 5.3, Global Requirements in DSRS BRD for business requirements.	High	Open
4.7.3	This is the first project of this magnitude to be delivered by ADE IT	ADE IT will need to continue to improve in its efforts to use "best practices" standards and processes to ensure on-time, in budget, high quality delivery of DSRS/DVT.	High	Open
4.7.4	Data governance	If the following general data aspects are not presented and approved by the Data Governance Board, then DVT cannot be built and delivered: Transaction, staging, operational and business intelligence related data (internal and external); enterprise-wide data naming convention and standards; data planning; data quality: availability, timeliness/latency definition, etc.; data attribute/metric management; data delivery vehicle/performance management; data user/access management; data storage; as well as data standards, ownership and compliance.	High	Open
4.7.5	Currency of data	If the data collected from various systems via DSRS and made available to DVT is not current, then this could delay the start of the data verification process.	High	Open

5 Business Requirements

The priority definitions used in the business requirements are listed below.

Priority	Description
Critical	A requirement with this priority must be included in the initial release of the project.
High	A requirement with this priority should be included in the next release after the initial launch of the project.
Medium	A requirement with this priority is considered a “nice to have” item for inclusion within a future release of the project.
Low	A requirement with this priority meets criteria to be excluded from initial releases of project, but should be tracked as a potential enhancement to be vetted with business owners and stakeholders for possible inclusion within a future release of the project.

Refer to Appendices D, E and F for REIL Score Review & Award workflow diagrams for the Building Administrator, Coach, and Teacher that provides a visual context for many of the requirements defined in this section.

Each discrete requirement is defined to include its priority, as described in the previous figure, the desired release phase or time period, an example of a scenario, the full description of the requirement, along with any relevant exceptions, reference to relevant documentation or information, and lastly any rules which may include explicit business rules, data needs, user interface needs, etc. that are known at this time. Note: All rules should be confirmed once this project moves onto the build (i.e., design/development) or buy phase. The requirement should also include a statement as to what positions or user types and the expected frequency of its occurrence (e.g., a teacher must verify the accuracy of their demographics annually at the end of the year).

Generally speaking, the system shall provide the general capability to generate an alert or notification whenever a specified event occurs. The alert should display in a prominent location for the recipient(s) until the appropriate action required, if any, has been taken on their part. This general capability is referenced in a number of requirements, but mostly those that require verification of data. Whenever an inquiry is submitted the system should always record the event for tracking and reporting purposes and added to a queue being routed to the logged-in User's superior for analysis, resolution, and response.

The following table summarizes the data areas requiring verification and by which User type that are in the requirements in the next section.

Step	Dependency	Data Verification Description	Data Verifier						
			Teacher	Coach	Building Admin	Superintendent	HR Admin	Agency Admin	ADE Admin
1	Data Loaded	**Teachers assigned to a School**			Y				
2	Step 1	**Career Pathway Designation**	Y		Y				
		○ "master educator"	X						
		○ "turnaround teacher"	X						
		○ "in-demand teacher"	X						
		○ "turnaround principal"			X				
3	Step 1	**Teachers assigned to each Coach**		Y					
4	Data Loaded	**Demographics**	Y	Y	Y				
		○ Teaching Team	X	X	X				
5	Step 1	**Course/Sections assigned to each Teacher**	Y						
6	Step 5	**For each Course/Section**	Y						
		○ Teachers assigned	X						
		○ For each student in the roster	X						
		▪ Amount of instructional time	X						
7	Data Loaded	**REIL Score**	Y	Y	Y				

Y – Indicates that the data should be verified by the User Type.

X – Indicates that the data should be entered

Note: Refer to Appendix B – Benefits Dependency Network Model and Appendix C – Benefits Analysis.

5.1 Teacher, Coach, and Building Administrator Requirements

5.1.1 Verify Teachers in School

Priority:	Critical
Release:	Phase 1
Scenario:	As a Building Administrator I need the ability to view a list of teachers in my school (i.e., teacher roster for school) in order to confirm my approval of its accuracy or submit an inquiry to notify the appropriate personnel if there is a potential discrepancy that may need to be corrected or there is a question about the data. For example, a teacher may be missing.
Description:	The system shall provide the capability to display a list of teachers that are currently assigned to a school for the logged in User and allow them a method to accept it as 100% correct or submit an inquiry to either report a discrepancy or ask a question. The system should also record each approval for tracking and reporting purposes. Note: The associated FTE should be included in this. For example, a teacher may teach .5 at school A and .5 at school B. The system shall also provide filter(s) to more quickly locate the desired information (e.g., school district name, school name, teacher name, etc.).
Exceptions:	The Teacher and Coach does not need this capability.
Reference:	DSRS BRD V11 for Approval.docx
Rules:	The following business rules apply to this requirement:

5.1.1.1 **DATA: The system shall display the following fields: Full Teacher Name (i.e., Last Name, First Name, and Middle Initial) and other appropriate information.**

5.1.1.2 **RULE: The teacher roster should be verified once per quarter over the entire school year unless the data has been changed or corrected in which case it would need to be rechecked.**

5.1.1.3 **RULE: When the teacher roster is ready for verification, either because the data has been loaded for the first time or updated, then the system should log this event and also send an alert to the appropriate Building Administrator.**

5.1.1.4 **RULE: Ensure that all data points are reviewed and approved within a configurable interval (e.g., all data must be reviewed within <number> of days).**

5.1.1.5 **RULE: When a Building Administrator has approved their teacher roster for their school, then the system should log this event along with date and time.**

5.1.1.6 **RULE: When a Building Administrator has submitted an inquiry for a teacher roster for their school, then the system should log this event and send an alert to their Superintendent at their school district to review and if necessary correct the data in the source system.**

5.1.1.7 **RULE: After an Approval or Inquiry Submission selection has been made for a data item, then these functions should be disabled/locked unless or until the data has been updated and refreshed.**

5.1.2 Select Career Pathway Designation

Priority:	Critical
Release:	Phase 1
Scenario:	As a Teacher, Coach, or Building Administrator I need the ability to select my career pathway in order to identify my current designation for this school year.
Description:	The system shall provide the capability to display a list of career pathway designation choices for the logged in User and allow them a method to accept it as 100% correct or submit an inquiry to either report a discrepancy or ask a question. The system should also record each approval for tracking and reporting purposes. Note: Career pathway will be included in demographics verification. Career Pathway designation options: • for a building administrator – “Principal” and “Turnaround Principal” • for a teacher or coach – “Teacher”, “Turnaround Teacher”, “In-Demand Teacher” and “Master Educator”
Exceptions:	None identified at this time.
Reference:	DSRS BRD V11 for Approval.docx
Rules:	The following business rules apply to this requirement:

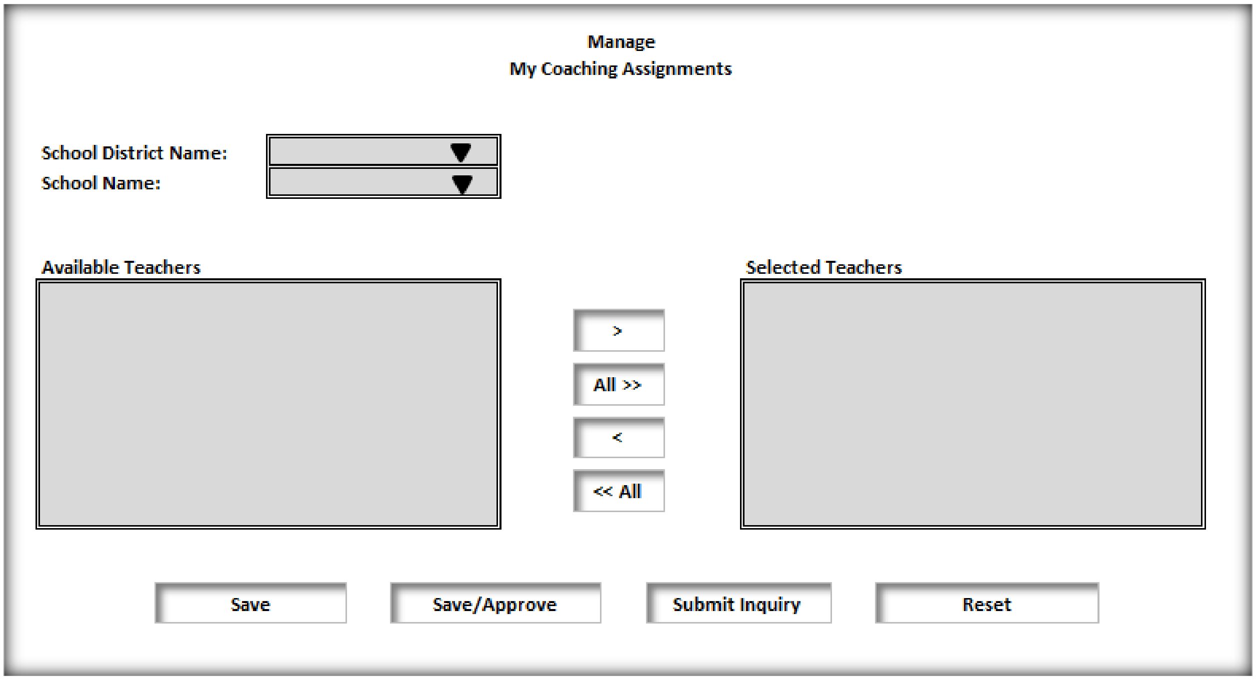
5.1.2.1 **DATA: The system shall display the following fields: Full Teacher Name (i.e., Last Name, First Name, and Middle Initial) and Career Pathway:** ○ For a building administrator – “Principal” and “Turnaround Principal” ○ For a teacher or coach – “Teacher”, “Turnaround Teacher”, “In-Demand Teacher” and “Master Educator” **5.1.2.2** **RULE: Career pathway designation verification may not be started until the verification of all teachers in the school has been completed and approved.** **5.1.2.3** **RULE: The career pathway designation should only be selected once per school year and cannot be changed again once the demographics have been approved.** **5.1.2.4** **RULE: One or more career pathway designations may be selected.** **5.1.2.5** **RULE: Ensure that all data points are reviewed and approved within a configurable interval (e.g., all data must be reviewed within <number> of days).**

5.1.3 Verify Teachers assigned to Coach

Priority:	Critical
Release:	Phase 1
Scenario:	As a Coach I need the ability to view the teachers that I support (i.e., coaching assignments) in order to confirm my approval of its accuracy or submit an inquiry to notify the appropriate personnel if there is a potential discrepancy that may need to be corrected or there is a question about the data. For example, a teacher that I coach is missing from the list.
Description:	The system shall provide the capability to display the coaching assignments for the logged in User and allow them a method to accept it as 100% correct or submit an inquiry to either report a discrepancy or ask a question.
Exceptions:	The Teacher and Building Administrator does not need this capability.
Reference:	DSRS BRD V11 for Approval.docx
Rules:	The following business rules apply to this requirement:

5.1.3.1	**DATA: The system shall display the following: filters – school district name and school name, data - available teachers (last name, first name, and middle initial) for the filter selections made, and the selected teachers (last name, first name, and middle initial), and date of last update.**
5.1.3.2	**RULE: Ensure that all data points are reviewed and approved within a configurable interval (e.g., all data must be reviewed within <number> of days).**
5.1.3.3	**RULE: The coaching assignments should be verified once per quarter over the entire school year unless the data has been changed or corrected in which case it would need to be rechecked.**
5.1.3.4	**RULE: Coaching assignment verification may not be started until the verification of all teachers in the school has been completed and approved.**
5.1.3.5	**RULE: When an Evaluatee has approved their coaching assignments then the system should log the event along with the date and time and send an alert to the appropriate Evaluator.**
5.1.3.6	**RULE: When an Evaluatee has submitted an inquiry regarding their coaching assignments then the system should log the event along with the date and time and send an alert to the appropriate Evaluator.**

Figure 2 - Manage & Verify Coaching Assignments



5.1.4 Enter Coaching Assignments

Priority:	Critical
Release:	Phase 1
Scenario:	As a Coach I need the ability to enter or select the teachers of which I have been assigned to support in order to have an accurate record of those, for which, I am accountable.
Description:	The system shall provide the capability to enter or select a coaching assignment for the logged in User. The system should also provide one or more filters (e.g., school district name, school name, etc.) to assist in more quickly locating the desired information.
Exceptions:	The Teacher and Building Administrator does not need this capability.
Reference:	DSRS BRD V11 for Approval.docx
Rules:	The following business rules apply to this requirement:

5.1.4.1 **DATA: The system shall display the following: filters – school district name and school name, data - available teachers (last name, first name, and middle initial) for the filter selections made, and the selected teachers (last name, first name, and middle initial), and date of last update.**
5.1.4.2 **RULE: A teacher may be assigned to one and only one coach at a time. A coaching assignment could change over the course of a school year (e.g., coach transfer).**
5.1.4.3 **RULE: Once the coaching assignment selections have been saved, the system should store them in the database awaiting further action (See 5.1.3).**

5.1.5 Verify Demographics

Priority:	Critical
Release:	Phase 1
Scenario:	As Teacher, Coach, or Building Administrator I need the ability to view my demographic information, in order to confirm my approval of its accuracy or submit an inquiry to notify the appropriate personnel if there is a potential discrepancy that may need to be corrected or there is a question about the data.
Description:	The system shall provide the capability to display the demographics data for the logged in User and allow them a method to accept it as 100% correct or submit an inquiry to either report a discrepancy or ask a question.
Exceptions:	None identified at this time.
Reference:	DSRS BRD V11 for Approval.docx
Rules:	The following business rules apply to this requirement:

5.1.5.1	**DATA: The system shall display the following demographics data fields: Total Years of Experience, Total Years in District, Attendance (%), Hire Date, Certification(s), Date of Birth, Leave Status, Contract Status (Continuing, Non-continuing), Team Assignment, Type of Assessment Used, Salary Augmentation (amount), and Career Pathway Designation. Other fields that may need to be included are School District Name, School Name, the Employee Name, and Job Code or Position depending upon availability.**
5.1.5.2	**RULE: The most current demographics information along with the date that it was last updated. If the data comes from more than once source then it should indicate the date of last update from each source.**
5.1.5.3	**RULE: Ensure that all data points are reviewed and approved within a configurable interval (e.g., all data must be reviewed within <number> of days).**
5.1.5.4	**RULE: The demographics should only be verified one time per school year unless the data has been changed or corrected in which case it would need to be rechecked.**
5.1.5.5	**RULE: When demographics are ready for verification, either because the data has been loaded for the first time or updated, then the system should log this event and also send an alert to the appropriate Evaluatee.**
5.1.5.6	**RULE: When an Evaluatee has approved their demographics then the system should log the event along with the date and time and send an alert to the appropriate Evaluator.**
5.1.5.7	**RULE: When an Evaluatee has submitted an inquiry regarding their demographics then the system should log the event along with the date and time and send an alert to the appropriate Evaluator.**
5.1.5.8	**RULE: When an Evaluator has approved an Evaluatee's demographics then the system should log the event along with the date and time and send an alert to the appropriate LEA Administrator.**
5.1.5.9	**RULE: When a LEA Administrator has approved an Evaluatee's demographics then the system should log the event along with the date and time and send an alert to the appropriate Evaluator.**
5.1.5.10	**RULE: After an Approval or Inquiry Submission selection has been made for a data item, then these functions should be disabled/locked unless or until the data has been updated and refreshed.**

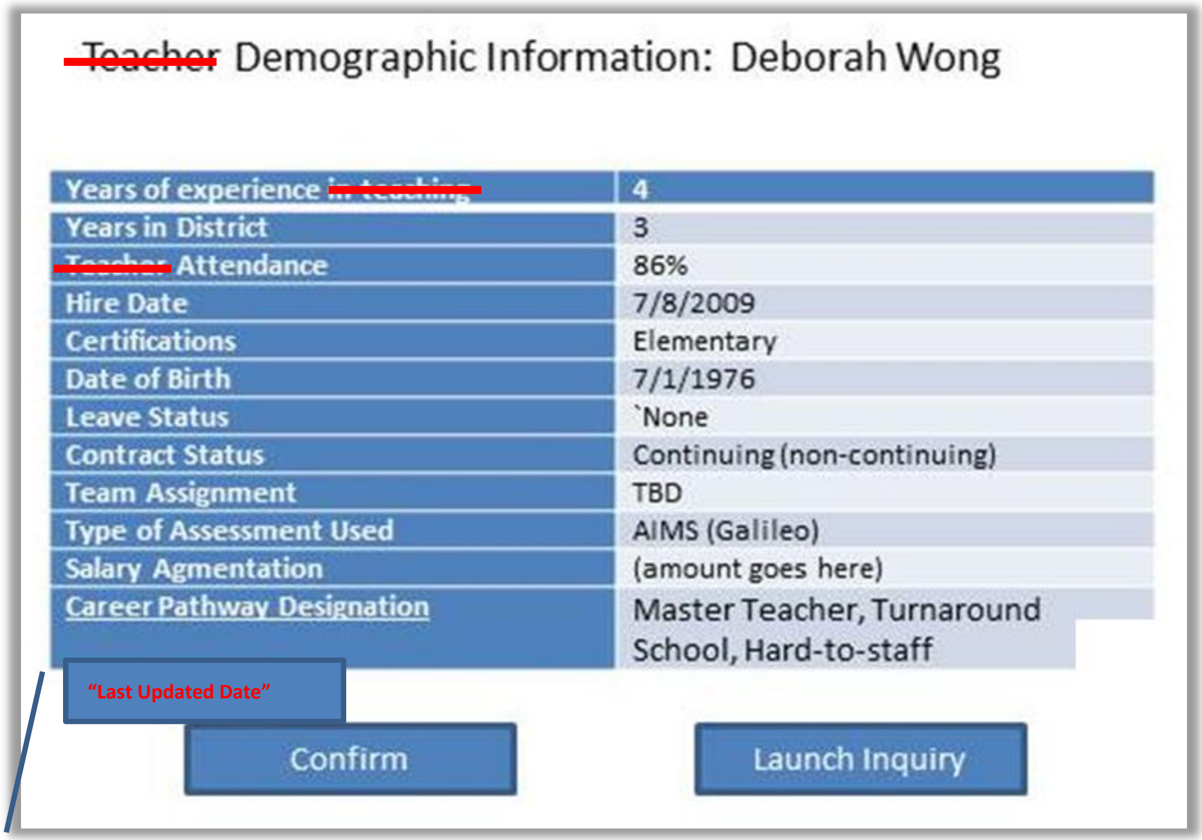


Figure 3 - Demographics

5.1.6 Select/Enter Team Assignment

Priority:	Critical
Release:	Phase 1
Scenario:	As a Building Administrator, I need the ability to enter or select the team to which my subordinates (i.e., Teachers) should be assigned in order to be grouped with other educators which will be assigned a REIL score at a team level.
Description:	The system shall provide the capability to enter or select a teaching team assignment for the logged in User. The system should also provide one or more filters (e.g., school district name, school name, etc.) to assist in more quickly locating the desired information.
Exceptions:	A Building Administration's "team" consists of all the schools in the district. A Teacher's "team" consists of all the teachers with the same group membership.
Reference:	Not applicable
Rules:	The following business rules apply to this requirement:

5.1.6.1 DATA: The system shall display the following: filters – school district name and school name, data – available and selected team members and date of last update. Include team name if necessary.

5.1.6.2 RULE: A teacher may be assigned to one and only one team at a time over the course of a school year.

5.1.6.3 RULE: Once the teaching team has been saved, the system should store them in the database awaiting further action (See 5.1.5 or 5.1.7).

5.1.7 Verify Course/Section Assignments

Priority:	Critical
Release:	Phase 1
Scenario:	As a Teacher I need the ability to view each of my course/section assignments in order to confirm my approval of its accuracy or submit an inquiry to notify the appropriate personnel if there is a potential discrepancy that may need to be corrected or there is a question about the data. For example, the teacher may not have all of the correct course assignments.
Description:	The system shall provide the capability to display each course/section assignment, to which, the logged in User is currently assigned and allow them a method to accept it as 100% correct or submit an inquiry to either report a discrepancy or ask a question. The system should also record each approval for tracking and reporting purposes. The system shall also provide filter(s) to more quickly locate the desired information (e.g., school district name, school name, course/section, etc.).

Exceptions:	The Coach and Building Administrator does not need this capability.
Reference:	Not appliable
Rules:	The following business rules apply to this requirement:

5.1.7.1 **DATA: The system shall display the following fields for each Course/Section for a teacher in the school district and school in which they teach: Course/Section Name and any other pertinent information.**

5.1.7.2 **RULE: The course/section should only be verified once per quarter over the entire school year unless the data has been changed or corrected in which case it would need to be rechecked. Note: For the 2012-13 school years only the data for the 40th day, the 100th day and end of year is available from STCC, therefore quarterly verification is not possible. It is desirable that the student roster be verified on about a quarterly basis in future school years (See email regarding ASU Roster Collection Schedule from 1/11/2013 for recommendations).**

5.1.7.3 **RULE: When the course/section is ready for verification, either because the data has been loaded for the first time or updated, then the system should log this event and also send an alert to the appropriate Evaluatee.**

5.1.7.4 **RULE: Ensure that all data points are reviewed and approved within a configurable interval (e.g., all data must be reviewed within <number> of days).**

5.1.7.5 **RULE: When a teacher has approved all of their course/section assignments, then the system should log this event along with date and time.**

5.1.7.6 **RULE: When an Evaluatee has submitted an inquiry for all of their course/section assignments, then the system should log this event and send an alert to their Evaluator at the school to review and if necessary correct the data in the source system.**

5.1.7.7 **RULE: After an Approval or Inquiry Submission selection has been made for a data item, then these functions should be disabled/locked unless or until the data has been updated and refreshed.**

5.1.8 Assign Co-Teaching[1]

Priority:	Critical
Release:	Phase 1
Scenario:	As a Building Administrator I need the ability to optionally assign a teacher to a co-teaching role for a course/section in order to record that a co-teaching approach was used and allocate their overall amount or percentage of time. Note: this may also be referred to as "job sharing" or "co-teaching." Instructional time may split with special education teachers and interventionists.

[1] Note: This capability is similar to the one discussed in the BFK-Link product.

Description:	The system shall provide the capability to optionally assign a teacher to a co-teaching role (e.g. interventionist, inclusion, etc.) as co-teaching team member to a course/section for the logged in User. The system shall also provide filter(s) to more quickly locate the desired information (e.g., school district name, school name, course/section, etc.).
Exceptions:	The Coach and Teacher does not need this capability.
Reference:	Not applicable
Rules:	The following business rules apply to this requirement:

5.1.8.1 **DATA: The system shall display the following fields for a teacher in the school district and school in which they teach: Course/Section Name, available teachers, selected team teacher(s) and corresponding percentage of time.**

5.1.8.2 **UI: The system should display a list of all available teachers, from which, the logged in User may choose to select to add to the team for the course/section.**

5.1.8.3 **RULE: Once the teaching team selection has been saved, the system should store them in the database awaiting further action (See 5.1.10).**

5.1.9 Record Instructional Time

Priority:	Critical
Release:	Phase 1
User Story:	As a Teacher, I need the ability to enter instructional time for the course/sections to which I am assigned in order to record the actual or a percentage of my time teaching for each student.
Description:	The system shall provide the capability to record instruction time as an amount or percentage for a student in a course/section.
Exceptions:	The Coach and Building Administrator does not need this capability.
Reference:	DSRS BRD V11 for Approval.docx
Rules:	The following business rules apply to this requirement:

5.1.9.1 **DATA: The system shall display the following fields adjacent to the other student roster fields: instructional time.**

5.1.9.2 **RULE: Instructional time may only be entered as an amount or percentage.**

5.1.9.3 **RULE: A teacher may enter instructional time for each student but only in each course/section that they actually teach.**

5.1.9.4 **RULE: Instructional time cannot be 0% and may even exceed 100% for any one student.**

5.1.9.5 **RULE: Instructional time may exceed 100% if there is more than one teacher for any one student.**

Figure 4 - Enter Instructional Time in Student Roster

Insert filters and fields in heading for:
School District Name
School Name
Course/Section or Grade

Student Name	ID	Grade	Gender	Ethnicity	ELL	Homeroom Number	Homeroom Teacher
Test 1, Student		3	M	Code		17	Star, Teacher
Test 2, Student		3	F	Code		17	Star, Teacher
Test 3, Student		3	F	Code		17	Star, Teacher
Test 4, Student		3	M	Code		17	Star, Teacher
Test 5, Student		3	M	Code		17	Star, Teacher
Test 6, Student		3	F	Code		17	Star, Teacher

Instructional Time

Save

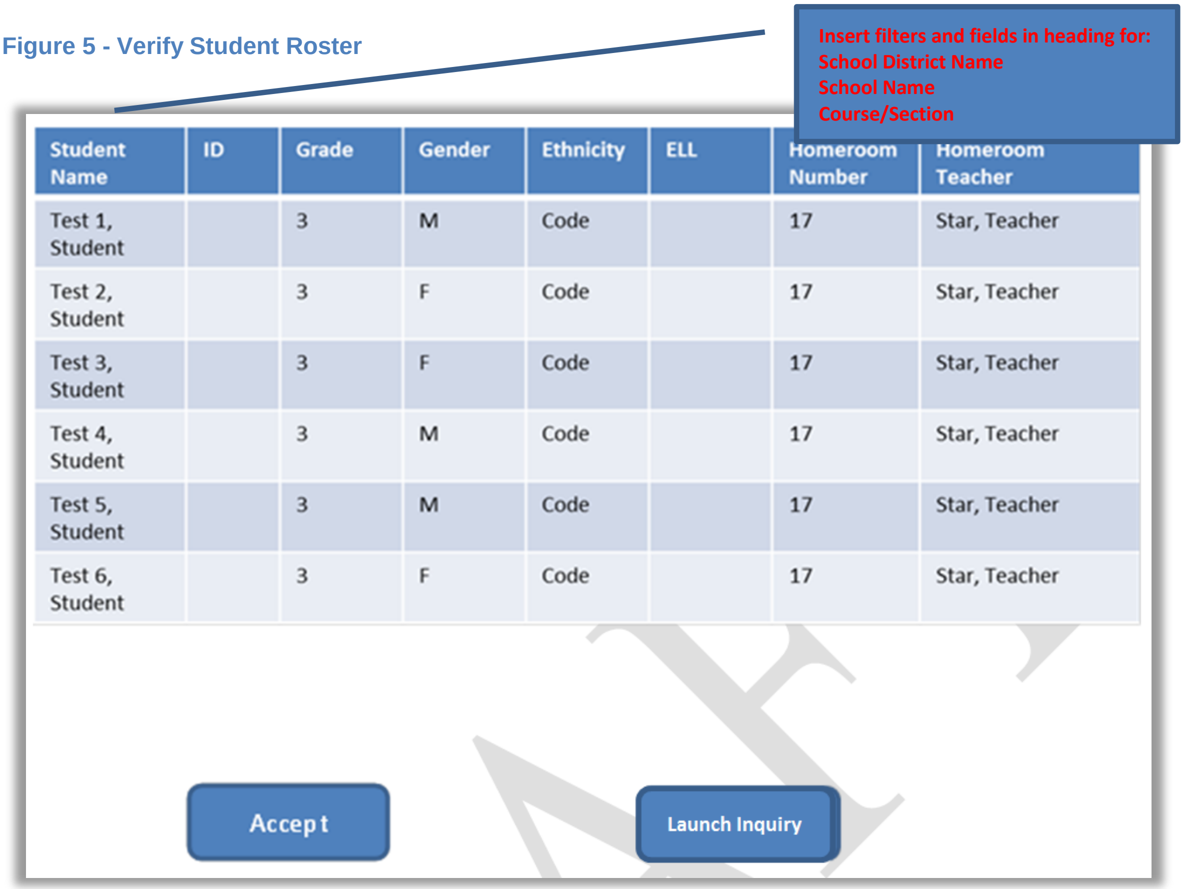
Cancel

5.1.10 Verify Student Roster

Priority:	High
Release:	Phase 2
Scenario:	As a Teacher I need the ability to view each student roster including instructional time, and team teaching, if applicable, for each of my course/section assignments in order to confirm my approval of its accuracy or submit an inquiry to notify the appropriate personnel if there is a potential discrepancy that may need to be corrected or there is a question about the data. For example, the teacher may have missing or incorrect student data including instructional time and alternate/team teachers.
Description:	The system shall provide the capability to display the student roster including instructional time, and team teaching, if applicable for each course assignment that the logged in User is currently teaching and allow them a method to accept it as 100% correct or submit an inquiry to either report a discrepancy or ask a question. The system should also record each approval for tracking and reporting purposes. The system shall also provide filter(s) to more quickly locate the desired information (e.g., school district name, school name, course/section, etc.). Note: The system shall provide the capability for the User to enter instructional time and/or alternate teacher(s) along with percentage of time for any student in the roster for a course/section.
Exceptions:	• The Coach does not need this capability. • For school years 2012-13, only the school roster needs to be verified by the Building Administrator since scoring will only be at the school level. • For school years after 2012-13, the roster needs to be verified by each teacher since scoring will be at the individual level.
Reference:	DSRS BRD V11 for Approval.docx
Rules:	The following business rules apply to this requirement:

5.1.10.1 **DATA: The system shall display the following student roster fields for each course assignment of the teacher in the school district and school in which they teach: Full Student Name (i.e., Last Name, First Name, and Middle Initial), ID, Grade, Gender, Ethnicity, ELL, Homeroom Number, Homeroom Teacher, Instructional Time and Co-teaching team.**
5.1.10.2 **RULE: The student roster for a course/section should only be verified once per quarter over the entire school year unless the data has been changed or corrected in which case it would need to be rechecked. Note: For the 2012-13 school years only the data for the 40th day, the 100th day and end of year is available from STCC, therefore quarterly verification is not possible. It is desirable that the student roster be verified on about a quarterly basis in future school years (See email regarding ASU Roster Collection Schedule from 1/11/2013 for recommendations).**
5.1.10.3 **RULE: The verification of all course/section assignments must be completed and approved before student roster verification can begin.**
5.1.10.4 **RULE: When the student roster is ready for verification, either because the data has been loaded for the first time or updated, then the system should log this event and also send an alert to the appropriate teacher.**
5.1.10.5 **RULE: Ensure that all data points are reviewed and approved within a configurable interval (e.g., all data must be reviewed within <number> of days).**
5.1.10.6 **RULE: When a teacher has approved their student roster(s) for either of their course/section assignments, then the system should log this event along with date and time.**
5.1.10.7 **RULE: When a teacher has submitted an inquiry for their student roster(s) for either of their course/section assignments, then the system should log this event and send an alert to their Evaluator at the school to review and if necessary correct the data in the source system.**
5.1.10.8 **RULE: After an Approval or Inquiry Submission selection has been made for a data item, then these functions should be disabled/locked unless or until the data has been updated and refreshed.**

Figure 5 - Verify Student Roster



Student Name	ID	Grade	Gender	Ethnicity	ELL	Homeroom Number	Homeroom Teacher
Test 1, Student		3	M	Code		17	Star, Teacher
Test 2, Student		3	F	Code		17	Star, Teacher
Test 3, Student		3	F	Code		17	Star, Teacher
Test 4, Student		3	M	Code		17	Star, Teacher
Test 5, Student		3	M	Code		17	Star, Teacher
Test 6, Student		3	F	Code		17	Star, Teacher

5.1.12 Verify REIL Score

Priority:	High
Release:	Phase 2
Scenario:	As a Teacher, Coach or Building Administrator I need the ability to view my calculated REIL Score in order to confirm my approval of its accuracy or submit an inquiry to notify the appropriate personnel if there is a potential discrepancy that may need to be corrected or there is a question about the data.
Description:	The system shall provide the capability to display the calculated REIL Score which the logged in User is currently teaching and allow them a method to accept it as 100% correct or submit an inquiry to either report a discrepancy or ask a question.
Exceptions:	None identified at this time.
Reference:	DSRS BRD V11 for Approval.docx
Rules:	The following business rules apply to this requirement:

5.1.12.1 RULE: The REIL score will not be calculated until all of the observation cycles and assessments are complete for the school year. Prior to that time, the only data that would display on the scorecard would be Observation Data for each completed cycle.

5.1.12.2 RULE: The system should always display the most current REIL Score along with the date that it was last updated. Since corrections may be made to the component data and the REIL Score is recalculated for an Evaluatee, it will be necessary to approve or submit an inquiry for the revised score Note: Visibility to previous REIL Score history may only be through DSRS and limited to when the new REIL score is accepted.

5.1.12.3 RULE: The REIL Value-Add Score should only be verified one time unless the data has been changed or corrected in which case it would need to be rechecked.

5.1.12.4 RULE: When the REIL Score is ready for verification, either because the data has been uploaded for the first time or updated, then the system should log this event and also send an alert to the appropriate Evaluator.

5.1.12.5 RULE: Ensure that all data points are reviewed and approved within a configurable interval (e.g., all data must be reviewed within <number> of days).

5.1.12.6 RULE: When an Evaluator has approved an Evaluatee's REIL Score then the system should log the event along with the date and time and send an alert to the appropriate Evaluatee.

5.1.12.7 RULE: When an Evaluator has rejected an Evaluatee's REIL Score then the system should log the event along with the date and time. The Evaluator should produce an adjustment to the REIL Score Component(s) where applicable.

5.1.12.8 RULE: When an Evaluatee has approved their REIL Score then the system should log the event along with the date and time, calculate the award and send along with an alert to the appropriate LEA Administrator.

5.1.12.9 **RULE: When an Evaluatee has submitted an inquiry regarding their REIL Score then the system should log the event along with the date and time and send an alert to the appropriate Evaluator.**

5.1.12.10 **RULE: When an Evaluator has accepted an Evaluatee's REIL Score & Component Inquiry then the system should log the event along with the date and time and send to the appropriate LEA Administrator.**

5.1.12.11 **RULE: When an Evaluator has rejected an Evaluatee's REIL Score & Component Inquiry then the system should log the event along with the date and time and send an alert to the appropriate Evaluatee.**

5.1.12.12 **RULE: When a LEA Administrator has also accepted an Evaluatee's REIL Score & Component Inquiry then the system should log the event along with the date and time and send an alert to the appropriate Evaluator and Evaluatee. The Evaluator should produce an adjustment to the REIL Score Component(s) where applicable.**

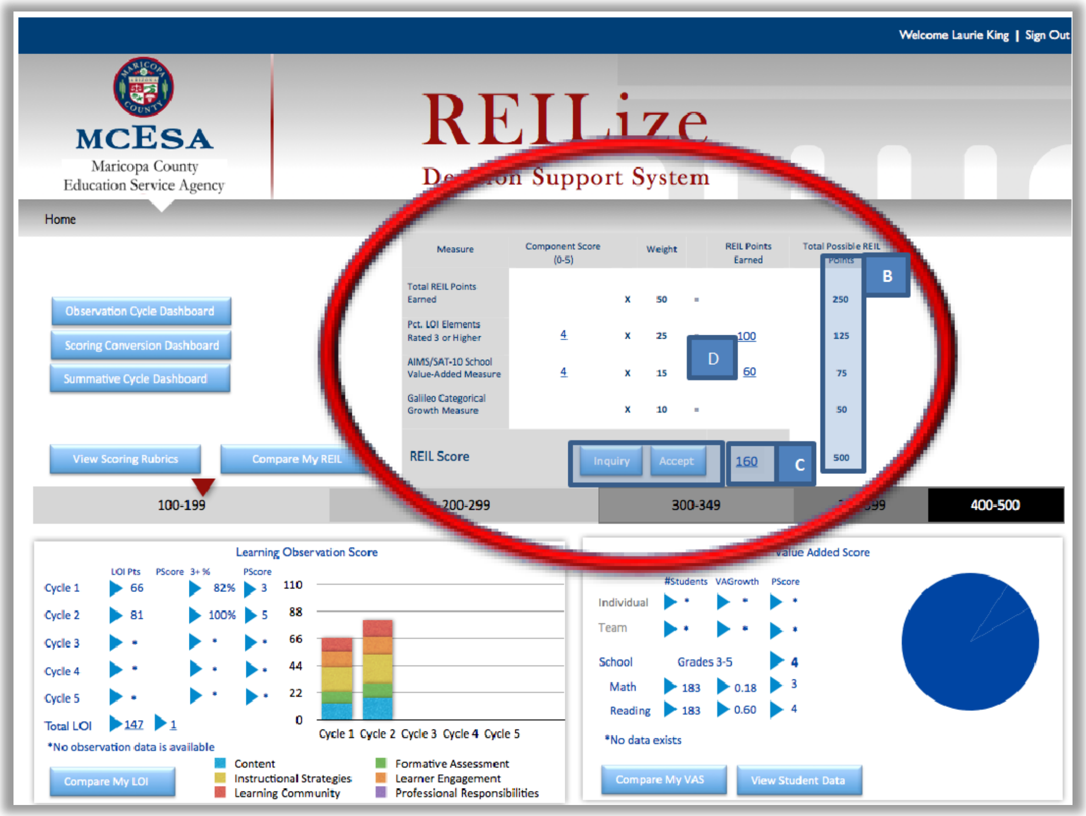
5.1.12.13 **RULE: When a LEA Administrator has rejected an Evaluatee's REIL Score & Component Inquiry then the system should log the event along with the date and time and send an alert to the appropriate Evaluatee.**

5.1.12.14 **RULE: When a LEA Administrator has received a REIL Score accepted by an Evaluatee then the system generate an authorized REIL award request for payment and send to the appropriate LEA HR System.**

5.1.12.15 **RULE: When an LEA HR System has received the REIL award payment request, then the system should log the event and send an alert to the appropriate Evaluatee. For a REIL payment award to be made for an evaluatee, the REIL Score must be approved by the evaluatee, their evaluator and the LEA Administrator.**

5.1.12.16 **RULE: After an Approval or Inquiry Submission selection has been made for a data item, then these functions should be disabled/locked unless or until the data has been updated and refreshed.**

Figure 6 - REIL Score



5.1.13 View Performance Awards Approval Queue

Priority:	High
Release:	Phase 2
User Story:	As an HR Administrator, I need to view a report allowing me to review and approve the final REIL score calculations and resulting awards for all Evaluatee's within my LEA.
Description:	The system shall provide the capability to display a report listing all Evaluatee's and their REIL results and corresponding awards, and contains actions for approving these, as well as the ability to access supporting information that is pertinent to the approval of any given Evaluatee. The report should: • Allow an LEA Administrator to indicate approval of the result of any Evaluatee in the queue. • Provide a filter to access the score calculation history for any Evaluatee in the queue. • Provide a filter to access any Evaluatee's demographics in the queue. Note: This requirement was moved here from the DSRS BRD.

Exceptions:	None identified at this time
Reference:	None identified
Rules:	The following business rules apply to this requirement:

5.1.13.1 RULE: Authorization of a performance award payment may be occur only if the REIL score has been reviewed and approved by the Evaluator (e.g., Principal), the Evaluatee (e.g., teacher), and the LEA Administrator (e.g., Superintendent) as indicated in the process workflow.

5.2 Administrative Requirements

5.2.1 Set Alert Option

Priority:	Low
Release:	TBD
Scenario:	As an Agency Administrator or Super User I need the ability to set a configurable option to turn alert notifications on or off in order to maximize or minimize the number of alerts that the system could generate.
Description:	The system shall provide the capability for a system configurable option to turn alert notifications on or off for each data area requiring verification.
Exceptions:	None identified at this time.
Reference:	Not Applicable
Rules:	The following business rules apply to this requirement:
5.2.1.1 RULE: Only allow a User that has an administrator role or permission to update this configuration option.	

5.2.2 Set Data Verification Review Completion Threshold Option

Priority:	High
Release:	TBD
Scenario:	As an Agency Administrator or Super User I need the ability to set a configurable option in order to establish a deadline by which verification of all data must be completed.
Description:	The system shall provide the capability for a system configurable option to set the interval threshold by which verification of all data must be completed by (e.g., all data must be reviewed within <number> of days).
Exceptions:	None identified at this time.
Reference:	DSRS BRD V11 for Approval.docx
Rules:	The following business rules apply to this requirement:
5.2.2.1 RULE: Only allow a User that has an administrator role or permission to update this configuration option.	

5.2.3 Set Instructional Time Entry Option

Priority:	HIgh
Release:	TBD
User Story:	As an Agency Administrator or Super User, I want to set the configuration option to either a percentage or hours/minutes for the teacher instructional time entry feature in order to allow the system to provide an option to enter the time as a percentage or in actual elapsed time in hours and minutes.
Description:	The system shall provide the capability for a person to set the Instruction Time Entry configuration option to either a percentage or hours/minutes. Default: percentage. Note: A change in the configuration should result in a change in the label and/or on-page instructions. This capability was originally defined in the TDV BRD.
Exceptions:	None identified at this time
Rules:	None identified at this time

5.2.4 Manage Workflows

Priority:	Low
Release:	Phase 4
Scenario:	As a Super User I need the ability to manage and publish a workflow in order to define the end-to-end process for a set of tasks, procedural steps and positions in the organization which are involved.
Description:	The system shall provide the capability to manage workflows including create, edit, and publish functions such that it can be clearly defined end-to-end process. Note: A workflow describes the tasks, procedural steps, organizations, positions, or people involved, required input and output information, and tools needed for each step in a business process. A published workflow is one that is available for consumption and use by other logged-in Users. Status changes should allow for configuration of a prompt to a role. Note: HR must be “copied” on an acceptance/rejection of an inquiry by an Evaluatee. Status list should be configurable (i.e., from “submitted” to “closed”) such that new statuses can be added within the workflow. Inquiry items in the queue should support a default path where the issue passes next, as well as the ability to promote/demote an item in any direction, or to a specific user within the issue thread’s context scope.
Exceptions:	Note: See Assumption 4.6.1.6.

Reference:	None identified
Rules:	The following business rules apply to this requirement:

5.2.4.1 **RULE: The workflow should be able to support more than one level of approval for a given task, activity or request. For example the REIL Score could go thru two and possibly three levels of workflow routing through the Evaluator, the Evaluatee, and possibly an LEA Administrator.**

5.2.5 Open Evaluation Period

Priority:	Medium
Release:	Phase 3
Scenario:	As an Agency Administrator or Super User I need the ability to open an evaluation period in order to allow the startup of the process of data verification for a school year.
Description:	The system shall provide the capability to open the data verification process for a school year and make it accessible to each User.
Exceptions:	None identified at this time.
Reference:	None identified at this time.
Rules:	The following business rules apply to this requirement:

5.2.5.1 **DATA: The system may need to provide some data rollover capability (e.g., "in demand positions at school and school district level), as applicable and feasible by copying data from one school year over to the next school year.**

5.2.5.2 **RULE: Only allow a User that has an administrator role or permission to perform this function.**

5.2.5.3 **RULE: The system should allow for multiple evaluation periods to be "open" and overlap (e.g., school year 2012-13 is winding down, but school year 2013-14 is just starting up.**

5.2.5.4 **RULE: When an evaluation period is "open" then all should data be viewable and all capabilities including verification (i.e., approval and submit inquiry) enabled.**

5.2.6 Close Evaluation Period

Priority:	Medium
Release:	Phase 3
Scenario:	As an Agency Administrator or Super User I need the ability to close an evaluation period in order to terminate the process of data verification for a school year because it has been completed.
Description:	The system shall provide the capability to close the data verification process for a school year and make it inaccessible to each User.
Exceptions:	None identified at this time.
Reference:	None identified at this time.
Rules:	The following business rules apply to this requirement:

5.2.6.1 **DATA: The system should still allow access to the data for previous school year evaluation periods, but "read only" views or alternatively through DSRS.**

5.2.6.2 **RULE: Only allow a User that has an administrator role or permission to perform this function.**

5.2.6.3 **RULE: Once an evaluation period is closed, it cannot be reopened.**

5.2.6.4 **RULE: When an evaluation period is "closed" then all capabilities including verification (i.e., approval and submit inquiry) should be disabled.**

5.3 Reporting Requirements

5.3.1 Inquiry Queue Progress Report

Priority:	Critical
Release:	Phase 1
Scenario:	As a Building Administrator, Superintendent, or HR Administrator I need the ability to view the aggregate status of all the items in the inquiry queue previously submitted for my school or school district in order to drill down into the detail and determine which items are still open or for those that are closed the resolution or answer to the question.
Description:	The system shall provide the capability to report the progress of all items in the Inquiry Queue towards resolution at an aggregate level (e.g., school district, school, etc.) of the number of items open, in-progress, and closed. Reason types when an item is closed may be either resolved or rejected. The system should also provide one or more filters (e.g., status, date range, etc.) to assist in more quickly locating the desired information. The system should also provide drill down capability for non-zero numbers of items to view the appropriate detailed information. The report should feature standard heading, page break and page numbering conventions, as well as subtotaling and grand totaling. The last page of the report should display any filter(s) selection made. The report should feature export options including saving as a PDF, XLS or CSV as appropriate. The reports should be able to produce a printer-friendly copy to a local printer.
Exceptions:	None identified at this time.
Reference:	None identified
Rules:	The following business rules apply to this requirement:

5.3.1.1 **DATA: The system shall display the following report fields: school district name, school district, count of items open, count of items in-progress, and count of items closed the latter of which should be drill-down enabled links to the Inquiry Queue Status Report for non-zero values.**

5.3.1.2 **RULE: If the logged-in User is a teacher then they should not be able to access this report.**

5.3.1.3 **RULE: The logged-in User should be able to see the inquiry submissions for their direct and indirect subordinates, if they have any, relative to their position in the organization hierarchy.**

Figure 7 - Inquiry Queue Progress Report

DVT Report 001

Inquiry Queue Progress Report
for School Year 2012-13

Report Date/Time: MM/DD/YYYY at HH:MM
Requestor: John Doe

School District Name	School Name	Open	In-Progress	Closed	% Not Closed
Alpha USD	Alpha-Centauri	5	14	1	95.00%
Alpha USD	Sigma	0	3	29	9.38%
Alpha USD	Zeta	11	15	37	41.27%
Subtotal		**16**	**32**	**67**	**41.74%**
Mt. Lemmon USD	Cabin Creek	3	27	19	61.22%
Mt. Lemmon USD	Peak	11	3	29	32.56%
Mt. Lemmon USD	Pinetop	19	19	19	66.67%
Subtotal		**33**	**49**	**67**	**55.03%**
Grand Total		**49**	**81**	**134**	**49.24%**

Page 1 of 1

5.3.2 Inquiry Queue Status Report

Priority:	Critical
Release:	Phase 1
Scenario:	As a Teacher, Coach, Building Administrator, Superintendent, or HR Administrator I need the ability to view the status of items in the inquiry queue previously submitted in order to determine which items are still open or for those that are closed the resolution or answer to the question.
Description:	The system shall provide the capability to report on all items in the Inquiry Queue to which the logged-in User has visibility. The system should also provide one or more filters (e.g., status, date range, etc.) to assist in more quickly locating the desired information. The report should feature standard heading, page break and page numbering conventions. The last page of the report should display any filter(s) selection made. The last page of the report should display any filter(s) selection made. The report should feature export options including saving as a PDF, XLS or CSV as appropriate. The reports should be able to produce a printer-friendly copy to a local printer.
Exceptions:	None identified at this time.
Reference:	None identified
Rules:	The following business rules apply to this requirement:

5.3.2.1 **DATA: The system shall display the following report fields: Full Name of Submitter, School Name, School District Name, (Job) Position, Submission Date/Time, Status (i.e., Open, In Progress, or Closed), Reason (i.e., Approved or Rejected), Data Verified, Comment/Question (text entry), Full Name of Respondent, Response Date/Time, Resolution (comments/text entry). Note: There could be more than one respondent to a single inquiry.**
5.3.2.2 **RULE: If the logged-in User is a teacher then they should only be able to see the inquiry submissions which they initiated. The School Name and School District Name should be omitted from the report.**
5.3.2.3 **RULE: The logged-in User should be able to see the inquiry submissions for their direct and indirect subordinates, if they have any, relative to their position in the organization hierarchy.**

Figure 8 - Inquiry Queue Status Report

DVT Report 002

Inquiry Queue Status Report
for School Year 2012-13

Report Date/Time: MM/DD/YYYY at HH:MM
Requestor: John Doe

Submitted By	**School District Name**	**School Name**	**Position**	**Submission Date/Time**	**Data Verified**	**Status**	**Reason**	**Comment/Question**
Jerry Maclin	Alpha USD	Alpha-Centauri	Teacher	MM/DD/YYYY at HH:MM	Demographics	Open		Lorem ipsum dolor sit amet, consectetuer adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat.
Respondent			**Position**	**Response Date/Time**				**Resolution/Comments**
Peter Principal			Principal	MM/DD/YYYY at HH:MM		In Progress	Approved	Eodem modo typi, qui nunc nobis videntur parum clari, fiant sollemnes in futurum.
Sara Superintendent			Superintendent	MM/DD/YYYY at HH:MM		Closed		Investigationes demonstraverunt lectores legere me lius quod ii legunt saepius.

Page 1 of 1

5.3.3 Data Verification Progress Report

Priority:	Critical
Release:	Phase 1
Scenario:	As a Building Administrator, Superintendent, or HR Administrator I need the ability to view the aggregate status of all Evaluatee's in my school or school district in order to drill down into the detail and determine which have not yet completed their data verification.
Description:	The system shall provide the capability to report the overall progress towards the completion of all data verification. The system shall provide the capability to report the progress of all Evaluatee's towards completion of data verification at an aggregate level (e.g., school district, school, etc.) including the total number of Evaluatee's and a count of how many of them have not reviewed their data at all (i.e., "Not Reviewed"), have started to review their data (i.e., "In Progress") which may or may not include an inquiry submission, or have completed all of their data verifications approving all items (i.e., "Approved").

	The system should also provide one or more filters (e.g., status, date range, etc.) to assist in more quickly locating the desired information. The system should also provide drill down capability for non-zero numbers of items to view the appropriate detailed information. The report should feature standard heading, page break and page numbering conventions, as well as subtotaling and grand totaling. The last page of the report should display any filter(s) selection made. The report should feature export options including saving as a PDF, XLS or CSV as appropriate. The reports should be able to produce a printer-friendly copy to a local printer.
Exceptions:	None identified at this time.
Reference:	None identified
Rules:	The following business rules apply to this requirement:

5.3.3.1 **DATA: The system shall display the following report fields: school name, school district name, the number of Evaluatee's (i.e., teachers and building administrators), the count of Evaluatee's that have not started their data review, the count of Evaluatee's that have started their data review, and the count of Evaluatee's that have completed their data review, along with the percentage of Evaluatee's that have not yet approved all of their data. % Not Approved = (Not Reviewed + In-Progress)/ # of Evaluatee's.**

5.3.3.2 **RULE: If the logged-in User is a teacher then they should not be able to access this report.**

5.3.3.3 **RULE: The logged-in User should be able to see the data verification status for their direct and indirect subordinates, if they have any, relative to their position in the organization hierarchy.**

Figure 9 - Data Verification Progress Report

DVT Report 003

Data Verification Progress Report
for School Year 2012-13

Report Date/Time: MM/DD/YYYY at HH:MM
Requestor: John Doe

School District Name	School Name	# of Evaluatees	Not Reviewed	In Progress	Approved	% Not Approved
Alpha USD	Alpha-Centauri	30	5	11	14	53.33%
Alpha USD	Sigma	32	0	3	29	9.38%
Alpha USD	Zeta	63	11	6	46	26.98%
Subtotal		**125**	**16**	**20**	**89**	**28.80%**
Mt. Lemmon USD	Cabin Creek	49	3	27	19	61.22%
Mt. Lemmon USD	Peak	43	5	9	29	32.56%
Mt. Lemmon USD	Pinetop	57	7	19	31	45.61%
Subtotal		**149**	**15**	**55**	**79**	**46.98%**
Grand Total		**274**	**31**	**75**	**168**	**38.69%**

Page 1 of 1

5.3.4 Data Verification Status Detail Report

Priority:	Critical
Release:	Phase 1
Scenario:	As a Teacher, Coach, Building Administrator, Superintendent, or HR Administrator I need the ability to view the data verification progress status detail in order to follow-up with those that have not yet completed this activity.
Description:	The system shall provide the capability to report progress status detail towards the completion of data verification to which the logged-in User has visibility. The system should also provide one or more filters (e.g., status, date range, etc.) to assist in more quickly locating the desired information. The report should feature standard heading, page break and page numbering conventions. The last page of the report should display any filter(s) selection made. The last page of the report should display any filter(s) selection made. The report should feature export options including saving as a PDF, XLS or CSV as appropriate. The reports should be able to produce a printer-friendly copy to a local printer.
Exceptions:	Since the student roster will be verified at a school level for 2012-13 by a Building Administrator it will always be included on the report and not associated to any other individual that is also included in the report.
Reference:	None identified
Rules:	The following business rules apply to this requirement:

5.3.4.1 **DATA: The system shall display the following report fields: school district name, school name, the school roster data verification status, followed by a list of the names of the education professionals and their data verification status for demographics, teaching team assignment, instructional time and REIL score as well as the overall data verification status. Each status should be either "Not Reviewed", "Approved", or "Inquiry Submitted" along with the date/time of the status in the latter two cases.**

5.3.4.2 **RULE: If the logged-in User is a teacher then they should only be able to see their own data verification status. The School Name and School District Name should be omitted from the report.**

5.3.4.3 **RULE: The logged-in User should be able to see the data verification status for their direct and indirect subordinates, if they have any, relative to their position in the organization hierarchy.**

5.3.4.4 **RULE: If it is necessary to verify the student roster more than one time per school year, then the system should display it once for each occurrence in the report.**

Figure 10 - Data Verification Status Detail Report

DVT Report 004				**Data Verification Status Detail Report**		**Report Date/Time:**	MM/DD/YYYY at HH:MM
				for School Year 2012-13		**Requestor:**	John Doe
School District Name	**School Name**	**School Student Roster**	**Date/Time**				
Alpha USD	Sigma	Approved	MM/DD/YYYY at HH:MM				
	Name	**Data Verified**	**Status**	**Date/Time**	**Overall Status**		
	Amy Grant				In Progress		
		Demographics	Inquiry Submitted	MM/DD/YYYY at HH:MM			
		Teaching Team	Approved	MM/DD/YYYY at HH:MM			
		Instructional Time	Approved	MM/DD/YYYY at HH:MM			
		REIL Score	Not Reviewed				
	Bill Million				In Progress		
		Demographics	Approved	MM/DD/YYYY at HH:MM			
		Teaching Team	Approved	MM/DD/YYYY at HH:MM			
		Instructional Time	Approved	MM/DD/YYYY at HH:MM			
		REIL Score	Inquiry Submitted	MM/DD/YYYY at HH:MM			
	Tina Turner				In Progress		
		Demographics	Approved	MM/DD/YYYY at HH:MM			
		Teaching Team	Not Reviewed				
		Instructional Time	Not Reviewed				
		REIL Score	Not Reviewed				
				Page 1 of 1			

5.3.5 View Incomplete Data Verification

Priority:	Critical
Release:	Phase 1
User Story:	As a Superintendent or Building Administrator, I need to view the full names of educators who have not verified all of their data in order to follow-up with them to ensure they complete the process.
Description:	The system shall provide the capability to display the full names of educators who have not completed the required verification of all data associated with their position. The data verification may include career pathway designation, demographics, course/sections assigned, student rosters and REIL score. This capability was originally defined in the DSRS BRD and moved here.
Exceptions:	None identified at this time
Rules:	The following business rules apply to this requirement:

5.3.5.1 **DATA: The system shall display the following report fields: school district name, school name, and a list of educator names and positions and for each data area, a checkbox that indicated the item has been either verified and approved "green" or either not verified or verified but with an outstanding inquiry submission.**

5.3.5.2 **RULE: If the logged-in User is a teacher then they should only be able to see their own data verification status. The School Name and School District Name should be omitted from the report.**

5.3.5.3 **RULE: The logged-in User should be able to see the data verification status for their direct and indirect subordinates, if they have any, relative to their position in the organization hierarchy.**

5.3.5.4 **RULE: If it is necessary to verify data more than one time per school year, then the system should display it once for each occurrence in the report.**

DVT Report 004		Incomplete Data Verification Report for School Year 2012-13	Report Date/Time:	MM/DD/YYYY at HH:MM
			Requestor:	John Doe

School District Name	School Name
Alpha USD	Sigma

Name	Position		Annual	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Brenda Ames	Assistant Principal	Career Pathway Designation					
		Demographics					
		Course/Sections Assigned					
		Student Rosters					
		REIL Score					
Terri Trenton	Coach	Career Pathway Designation					
		Teachers Assigned to Coach					
		Demographics					
		REIL Score					
Amy Grant	Teacher	Career Pathway Designation					
		Demographics					
		Course/Sections Assigned					
		Student Rosters					
		REIL Score					
Bill Million	Master Educator	Career Pathway Designation					
		Demographics					
		Course/Sections Assigned					
		Student Rosters					
		REIL Score					
Tina Turner	Teacher	Career Pathway Designation					
		Demographics					
		Course/Sections Assigned					
		Student Rosters					
		REIL Score					

Page 1 of 1

5.4 Global Requirements

5.4.1 Respond to an Inquiry/View My Alerts

Priority:	Critical
Release:	Phase 1
Scenario:	As a Building Administrator, Superintendent or LEA Administrator I need the ability to view the items in the inquiry queue, usually associated with an alert, that were submitted and assigned to me in order to analyze the discrepancy or question, respond, and close the item.
Description:	The system shall provide the capability to respond to a submitted inquiry, usually associated with an alert, in a queue that includes closing an item and a response as to its resolution or answer to a question.
Exceptions:	All Users should be able to view alerts, of which, they are recipients.
Reference:	None identified
Rules:	The following business rules apply to this requirement:

5.4.1.1 RULE: Any inquiry to which is being responded should always include a response as to its resolution or answer to a question.

5.4.1.2 RULE: When an inquiry is being closed, it must be marked with a reason type of either "resolved" or "rejected."

5.4.1.3 RULE: Any inquiry should be closed by the person in the position to which it is assigned or escalated within the organization no matter which level (i.e., Building Administrator, Superintendent or HR Administrator). A Superintendent may close any inquiry.

5.4.1.4 RULE: Any inquiry may be closed by a person that has been granted the appropriate permission or System Administrator role.

5.4.1.5 RULE: When an inquiry is closed, then the system should either send an alert or notification to the originator and/or remove the original inquiry from their queue.

5.4.2 Online Help

Priority:	Critical
Release:	Phase 1
Scenario:	As a User I need the ability to access online help in order to determine how to use a feature or function.
Description:	The system shall provide the capability for an online help system that describes "how to use the current version of the system" that is intuitive and allows for self-

	service.
Exceptions:	None identified at this time
Rules:	None identified at this time

5.4.3 Training Program

Priority:	Critical
Release:	Phase 1
Scenario:	As a User I need to participate in a training program in order to have a better understanding of how to use and interact with the DVT system.
Description:	ADE IT shall provide for a comprehensive education and training program including a User Guide that describes clearly and concisely "how to use the current version of the system."
Exceptions:	None identified at this time
Rules:	None identified at this time

6 Management & Operational Requirements

This section describes the management and operational requirements in terms of hardware, software, performance, supportability, security, interface, availability, as well as compliance in order to achieve the project's objectives. It also includes a separate section for technical assumptions and constraints.

6.1 Hardware Requirements

This sub-section describes hardware requirements and any related processes that are known at this point in time. Where and as applicable this section should

- Include a detailed description of specific hardware requirements and
- Associate them to specific project functionality/deliverables. Include information such as type of hardware, brand name, specifications, size, security, etc.

ID	Requirement
6.1.1	The application should be implemented on hardware in accordance with IT standards.
6.1.2	The application should not be implemented such that it can only run from a single laptop or personal computer.

6.2 Software Requirements

This sub-section describes software requirements and any related processes and should include a detailed description of specific software requirements and associate them to specific project functionality/deliverables that are known at this point in time. Include information such as in-house development or purchasing, security, coding language, version numbering, functionality, data, interface requirements, brand name, specifications, etc. that are known at this point in time.

ID	Requirement
6.2.1	The system should be purchased or developed using software in accordance with IT standards.
6.2.2	The system shall reduce or eliminate manual processes where feasible.
6.2.3	The system shall provide automated interfaces with each related system where feasible.
6.2.4	The system should provide a method to periodically collect current data from various systems, both internal and external, that are confirmed as the "single source of truth" and made available to DVT via DSRS.

6.3 Peformance Requirements

This sub-section describes performance requirements and any related processes and should include a detailed description of specific performance requirements and associate them to specific project functionality/deliverables processes that are known at this point in time. This sub-section should include information such as cycle time, speed per transaction, test requirements, minimum bug counts, speed, reliability, utilization etc.

ID	Requirement
6.3.1	Search response shall be at ± 10 seconds in accordance with IT standards.
6.3.2	Page refresh shall be at ± 10 seconds in accordance with IT standards.
6.3.3	The system shall be designed such that it is in accordance with “usability best practices” to ensure consistency, ease of navigation, and intuitiveness.
6.3.4	**# of Logged in Users.** The system shall provide the capability to support peak usage of no more than four thousand (4K) concurrent logged in Users and allow for a 10 to 20% growth rate over the next year but eventually up to fifty thousand (50k).
6.3.5	The infrastructure shall support the application storage capacities required for the ongoing storage of a rolling 13 years of data, at a minimum after which it may be archived.
6.3.6	The business has determined that whatever archive management approach is decided upon, archived data must be quickly accessible, secure, and online to Users.
6.3.7	Offeror shall address the issue of latency and applicable WAN virtualization / optimization strategies.
6.3.8	Offeror shall address the issue of network performance and Bandwidth Management.
6.3.9	The system needs to be accessible 24 x 7x365, except for periodic maintenance
6.3.10	The system needs to support a peek usage of no more than four thousand concurrent users.

6.4 Supportability Requirements

This sub-section describes all of the technical requirements that affect supportability and maintainability such as coding standards, naming conventions, maintenance access, required utilities, etc.

ID	Requirement
6.4.1	The application and all associated data shall have backup and restore capabilities that are in alignment with IT policies, as well as standard backup and recovery plans.
6.4.2	In the event of a catastrophic failure, the application and associated data shall be fully functional within twenty-four (24) hours.
6.4.3	The system shall be designed such that time-out events and other unexpected system errors are non-occurring or minimally occurring events. If and when these system events occur then the system shall automatically record and report it to the IT Development & Support team.
6.4.4	A 10 to 20 percent increase in User scalability is anticipated for this application.
6.4.5	An increase in application scalability is anticipated but not quantified at this time.
6.4.6	The infrastructure shall support the application storage capacities required for the ongoing storage of a rolling 13 years of data, at a minimum after which it may be archived.
6.4.7	Will support the most current, commonly used, and vendor-supported browser technology including: Internet Explorer 7 and above, Chrome 1.5 and above, Safari 4.0 and above, and Firefox 8.0 and above, Firefox Mobile.
6.4.8	Will support technology devices with the following versions of operating systems and above: Windows 7, Android 2.2, Mac OS 10.5, iOS 4.
6.4.9	Offeror shall identify all resources and skill sets required for ADE to support the implementation and maintenance of the solution. Resources should be identified by role, and each role must have the required skills identified. This may include roles such as infrastructure and networking, programming, database development and administration, and skills such as C#, VB, SQL Server administration, etc.
6.4.10	Offeror shall further define roles as 100 Level (novice) to 400 Level (expert), what constitutes baseline accomplishments and those necessary to achieve next level of experience.
6.4.11	Offeror shall identify how many resources of each role are needed for the implementation phase as well as the maintenance phase.
6.4.12	Offeror shall provide detailed documentation regarding how: • The system shall be able to be clustered or support failover to another datacenter. • The system shall be protected by disaster recovery / business continuity policies
6.4.13	Offeror shall provide estimated recovery time for each class of service.

6.5 Security Requirements

This sub-section describes all of the technical requirements that affect security such as security audits, cryptography, user data, system identification/authentication, resource utilization, etc.

<table>
<tr><th>ID</th><th>Requirement</th></tr>
<tr><td>6.5.1</td><td>The system shall be implemented with security protocols in accordance with IT standards.</td></tr>
<tr><td>6.5.2</td><td>The system shall support a single sign-on with credentials (i.e., user id and encrypted password), password reset, and interoperability capability in accordance with IT standards.</td></tr>
<tr><td>6.5.3</td><td>The system shall provide authorization and access control capabilities associated with the roles and permissions similar to those defined in other ADE applications in accordance with IT standards.</td></tr>
<tr><td>6.5.4</td><td>The system shall provide the capability for a logged-in User to only view the detailed data for themself and only other data, to which, they have been granted visibility. Visibility is determined by the union of their job or position within the state education system organizational hierarchy and the roles/permissions, of which, they have been granted. Note: For those user types that have greater visibility across multiple educational institutions (i.e., school level and above) then they should be able to view peer data appropriate for their job or position and only if it is masked and/or aggregated.

User Story 1: As a Teacher I want to be able to log in to the system and be able to view my own education data in detail in order to verify my performance scores.
User Story 2: As a Building Administrator I want to be able to log in to the system and be able to view education data for others within my scope of visibility in order to monitor the performance and progress of my subordinates.

Examples:
. Agency Admin (e.g., MCESA) can view aggregated data, and detail data but only if it is masked, for schools and school districts within their regional service center area.
. HR Administrator can view aggregated data and detail data for any school within their LEA.
. Superintendent can view aggregated data and detail data for any school within their LEA. They may view aggregated data, and detail data but only if it is masked for other LEAs.
. Building Administrator can view aggregated data and detail data for their school within their LEA. They may view aggregated data, and detail data but only if it is masked for schools in other LEAs. A Building Administrator may be assigned to one or more schools.
. Coach can only view aggregated data for the teachers to which they are assigned. They may also view aggregated data for other coaches. They cannot view detail data.
. Any User (i.e., Building Administrator, Coach, and Teacher) can view their own data. They may also view peer data appropriate for their job or position but only if it is masked and/or aggregated.

<table>
<tr><th>LEVEL</th><th>ORGANIZATIONAL HIERARCHY</th></tr>
<tr><td>State</td><td>ADE Admin</td></tr>
<tr><td>County</td><td>MCESA Admin</td></tr>
<tr><td>LEA</td><td>HR Admin, Equivalent, or Designee</td></tr>
<tr><td>District</td><td>Superintendent, Equivalent, or Designee</td></tr>
<tr><td>School</td><td>Building Admin, Equivalent, or Designee</td></tr>
</table>
</td></tr>
</table>

ID	Requirement
	Building | Teacher, Coach, or Equivalent
6.5.5	Shall record each user login/logoff and each interaction with the system.
6.5.6	Shall make these logs readily accessible for sorting and filtering to appropriately authorized end users.
6.5.7	Shall encrypt all connections using a public / private key system like that of Secure Sockets Layer (SSL).
6.5.8	Shall encrypt all personally identifiable information during transmission and in storage.
6.5.9	Shall consider standards such as, but not necessarily limited to: Health Insurance Portability and Accountability Act (HIPAA), Family Educational Rights and Privacy Act (FERPA), Payment Card Industry Data Security Standards (PCI DSS), and Federal Information Security Management Act (FISMA) as applicable to this project.
6.5.10	Shall include, where applicable, controls similar to those outlined in the Sarbanes-Oxley Act and audited by SAS 70.
6.5.11	Offeror shall provide detailed information regarding safeguards in place to address access to data in this multitenant solution that fall under these aforementioned PII.

6.6 Interface Requirements

This sub-section describes all of the technical requirements that affect interfaces such as protocol management, scheduling, directory services, broadcasts, message types, error and buffer management, security, etc.

ID	Requirement
6.6.1	Data that will be collected from various systems should be Data Governance and CEDS/Ed-Fi data standards compliant in accordance with the latest version adopted by the ADE.
6.6.2	The product solution must support “MCESA” branding.

6.7 Availability Requirements

This sub-section describes all of the technical requirements that affect availability such as hours of operation, level of availability required, down-time impact, support availability, etc.

ID	Requirement
6.7.1	The application shall provide "high availability" with minimal and brief User interruption (e.g. periodic maintenance) such that it may be accessible beyond the normal ADE business hours of operation (i.e., 24 x 7 x 365) including evenings and weekends.
6.7.2	Periodic maintenance needs to be scheduled at "off hours" other than during normal ADE business hours of operations. The schedule should be published and clearly communicated to all system Users in advance.
6.7.3	A Service Level Agreement (SLA) should be drafted in support of the system.

6.8 Assumptions/Contraints

This sub-section describes any technical assumptions / constraints related to any of the project's requirements.

6.8.1 Technical Assumptions

ID	Assumption
6.8.2	None identified at this time.

6.8.3 Technical Constraints

ID	Constraints
6.8.4	None identified at this time.

6.9 Compliance Requirements

This sub-section describes all of the compliance requirements relevant to this project.

ID	Requirement
6.9.1	The system shall be compliant with the most current, effective current data standards.
6.9.2	The system shall be compliant with the terms of the MCESA REIL grant proposal, as applicable to the deliverables in this project.

7 Glossary of Terms

A glossary forms the basis for efficient and quality communication. The glossary shall at a minimum contain definitions for each term and acronym in the context of the problem domain. All documentation shall use only the terms from the glossary. During the development of the glossary, redundancies in the common business language are identified and consolidated to a single term. Note: Terms marked with '*' are from the MCESA Guidebook Terms verbatim.

Term	Acronym	Definition
Agency Administrator		A role that refers to an individual employed at a regional educational service agency, of which there are five in the state of Arizona (e.g., MCESA).
AIMS/SAT-10 Value-Added Measure*		An estimate of a school's contribution to student growth in reading and math on AIMS and SAT-10. A school's value-added estimate represents the difference between its students' actual and predicted test scores, where the predicted test scores are determined based on students' prior achievement, background characteristics, and school characteristics. Schools' value-added estimates are compared to the average value-added estimate in the state to determine REIL performance scores.
Approval		An affirmative action taken to indicate that the data verification of the information displayed is accepted as 100% correct.
BASIS Administrator		A role that refers to an individual employed by BASIS Research, a 3rd party vendor service provider that performs detailed analyses of various educational data and calculates the REIL score.
Building-Level Administrator		The Building-Level Administrator (a.k.a. Building Administrator) role refers to a school leader (e.g., Principal, Assistant Principal, delegate, or head of school depending upon the school district and/or school) who evaluates an assigned cadre of teachers.
Career Pathways		A specific position in the Rewarding Excellence and Instruction and Leadership program designed to create opportunities for growth and increased compensation, assisting in the recruitment and retention of the most talented and effective teachers and principals. These include Coaches, In-Demand Teachers, Peer Evaluators, Turnaround Teachers, and Turnaround Principals. Each Career Pathway contains Professional Development Topics and a variety of Professional Development Options to support all learners in moving their professional practice from theory, to practice and on to learning and leading.
Coach		A Master Educator that supports classroom teachers through modeling, feedback, coaching, and job-embedded professional development that supports teachers in using proven teaching methods. A coach does not directly instruct students on an ongoing basis and is observed with the Coaching Observation Instrument
Coach-Teacher Assignment		A list of the teachers, to which, a coach is assigned to support.
Common 1 to 5 Scale*		The scale on which results of all individual performance measures are placed before they are combined into the REIL Score. Conversion charts are used to place the Total LOI Points, LOI 3+ Rate, AIMS/SAT-10 value-added measures, and Galileo Categorical Growth on the common 1 to 5 scale.

Term	Acronym	Definition
Conversion Charts*		Charts that explain the criteria for translating results from the individual performance measure (LOI, AIMS value-added, and Galileo Categorical Growth) to the 1 to 5 scale.
Education Professional		An Education Professional is a general classification of educator jobs or positions such as Teachers, Coaches, Building Administrators, and Superintendents.
English Language Learner	ELL	Student demographic indicator
Evaluatee		A person, which in this is role, is being observed and evaluated with any of the REIL Observation Instruments. An Evaluator can be both an Evaluator and an Evaluatee (e.g., Principal).
Evaluator		A person, which in this is role, will use the Observation Data Capture Tool Suite or Truenorthlogic to record Observation scores of an Evaluatee to which they have been assigned to observe and score. Evaluators can serve in dual roles as an Evaluator (e.g., Building Administrators and Superintendents) and an Evaluatee.
Family Educational Rights and Privacy Act	FERPA	Federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education (20 U.S.C. § 1232g; 34 CFR Part 99 www.ed.gov).
Galileo Categorical Growth Measure*		A criterion-referenced growth measure developed by ATI. This measure tracks the proportion of students who maintain or advance their mastery of Arizona state content standards from the fall pre-test to spring post-test.
Hard to Staff Assignment		Teacher assignments where the supply of licensed professionals is low and the rate of turnover among licensed professionals is high. Examples of hard-to-staff assignments are ELA-S and special education center assignments.
HR Administrator		The HR Administrator role may be filled by a director, clerk, or other designated person from the human resources department at a school district.
Instructional Time		The percentage or amount of time a teacher instructs a student in a course/section. There may be instances where this is more than one instructor for a student in a course/section.
Inter-Rater Reliability		Checking consistency among raters; all raters should be rating at statistically the same level
Intra-Rater Reliability		Checking the consistency of the ratings each rater gives. This ensures that a rater is consistent in their rating.
LEA Administrator		A role that refers to either a Superintendent or HR Administrator.
Leader		Also referred to as a Principal.
Leading Observation Instrument	LdOI	Composed of 5 rubrics, this document is the basis for the principal evaluation and scoring.
Learning Observation Instrument*	LOI	The instrument used to measure the quality of teachers' instructional practice through classroom observations. The LOI is made up of five rubrics: Content, Formative Assessment, Instructional Strategies, Learner Engagement, and Learning Community.
Local Education Agency	LEA	Typically a School District or a Charter School

Term	Acronym	Definition
LOI 3+ Rate*		The percentage of LOI element ratings that teachers receive from all observation cycles that are rated a 3 or higher on the LOI rubrics. The LOI 3+ Rate accounts for 25 percent of the REIL Score in 2012-13.
LOI Observation Cycle*		The three stages to each evaluation of classroom instruction: Pre-Conference, Observation, Post-Conference. Teachers will complete five observation cycles in 2012-13. A single observation cycle should take ten school days to complete.
Maricopa County Education Service Agency	MCESA	Maricopa County Educational Service Agency. MCESA provides education services and support to assist Maricopa County schools and school districts in meeting strategic goals for student achievement. Dr. Don Covey, Maricopa County Superintendent of Schools, leads the agency.
Master Educator		An educator that takes on instructional leadership positions designed to support student academic growth and teacher development. The Master Educator career pathway can take on two different "trails." Trial One involves Master Educators becoming coaches (see definition). Trail Two involves a variety of career pathway choices such as becoming a lead teacher's, taking on additional students, and facilitating eLearning options. Trail Two Master Educators directly instruct students on an ongoing basis and are observed with the Learning Observation Instrument.
Maximum Scoring Value		The highest scoring value achieved.
MCESA Employee	MCE	A person employed by the Maricopa County Educational Service Agency.
Mean Value		The mathematical average that is the calculated result of the sum of all scores divided by the count of scores, e.g. (4+2+3+1+4) / 5 = 2.8
Minimum Scoring Value		The lowest scoring value achieved.
Mode Value		The value that occurs most frequently in a data set.
Observation Cycle		A completed evaluation period. An Administrative/Principal Observation Cycle is not broken down into sessions, as is the Teacher Observation Cycle. The Principal Observation Cycle encompasses an entire school year.
Observation Cycle Session		One of three components of a teacher Observation Cycle. The 3 components are: Pre conference, Observation, and Post-Conference.
Observation Data Capture Tool Suite	ODCT	The suite of tools that enable the entry of Observation scores for Evaluatee's.
Observation Score		Numeric value applied to rubric elements and events by evaluators after observing Evaluatee's in their associated environments where job performance typically occurs.
Observation Setting Event		Applies only to the ODCT Principal Tool and is an evaluation occurrence where the principal's evaluator observes and gathers information that is part of the element scoring criteria. There are 7 event types of Observation Settings out of a total of 15 events.
Peer Evaluator	PE	A MCESA employee whose primary responsibility is to perform classroom observations of teachers in REIL districts
Performance level		Correlated to element scoring numbers within each of the rubrics (values of 0-4 for Administrators / Principals and 0 to 5 for teachers).

Term	Acronym	Definition
Personnel Action Request	PAR	Payment transaction related to paying a performance incentive.
Principal	P	A Principal is an educator who has executive authority for a school. They may be assisted in the execution of their duties by an Assistant Principal.
Principal Observation Data Capture Tool	PODCT	The suite of tools that enable the entry of Observation scores for Principals.
Private		Secure content only available to anyone that has logged into the site and, to which, they have been granted access.
Public		Public content is available to anyone who visits the site but has not logged in.
REIL Components*		The four types of REIL performance measures: School Growth, Individual Growth, Team Growth, and Observation Scores.
REIL Field Specialist	FS	A MCESA employee whose primary responsibility is the implementation of the REIL Grant Design in the REIL Districts.
REIL Performance Award*		The financial rewards for educators who demonstrate excellence on the REIL performance measures. REIL performance awards are determined by REIL Scores. In 2012-13, eligible educators will receive REIL awards of $2,000, $2,500, or $3,000.
REIL Score*		The combined measure of educator effectiveness used to determine state performance classifications and REIL performance awards. The REIL Score will range from 100 to 500.
REILize Decision Support System	RDSS	A cohesive, integrated system designed to enable users to access and analyze information to support problem-solving and decision making · Gathers and links disparate sources of data · Generates reports and allows for analysis · Provides user-specific information (e.g., teacher view, principal view)
Rewarding Excellence in Instruction and Leadership	REIL	An initiative of the Maricopa County Education Service Agency, engages six Maricopa County school districts in implementing systemic change aimed at transforming how schools recruit, retain, support, and compensate effective teachers and principals. The ultimate goal is building the capacity of educators, targeted professional learning, and tools for measuring student success, establishment of multiple career pathways, and sustainable, differential, performance-based compensation are critical elements of REIL. The five year initiative, which will culminate in 2014-2015, is funded by a $51.5 million Teacher Incentive Fund Grant from the US Department of Education.
Rubrics		A rubric is a scoring tool used to assess educators (e.g. Teachers, principals).
Scalability		Scalability is the ability of a system, network, or process to handle an increasing amount of work in a capable manner, or its ability to be enlarged to accommodate growth. A system whose performance improves proportionally to the hardware capacity added is said to be a scalable system.
School Codes for the Exchange of Data	SCED	National Standardized course codes and descriptions to be able to exchange data about courses across the country.
Secondary Evaluator		A Secondary Evaluator acts on behalf or at the request of a Principal and/or Superintendent and should be allowed access to the equivalent set of capabilities.

Term	Acronym	Definition
Special Education	SPED	Student demographic indicator
Standard Report		Any other report that is not a dashboard or graphical style of report (e.g. list).
State Performance Classifications*		The four evaluation designations that districts must assign to Arizona classroom teachers: Ineffective, Developing, Effective, And Highly Effective. In the REIL system, the "Effective" category is partitioned into "Effective 1" and "Effective 2" in order to differentiate performance awards.
State Report Manager	SRM	The SRM is the database where school districts upload their self-certified "student-teacher-course connection data" having passed all of the SRM validation rules. These validation rules are connected to SAIS, EDSh, and Enterprise. Thus it is certified both at a district and school level. Currently, there are three reporting submissions available (i.e., 40th day, 100th day and end of year).
Student Information System	SIS	District system that captures student attendance information.
Student Teacher Course Connection Link	STL	The concept capturing the relationship between Students, Teachers, and Courses.
Student Test Score		Numeric value resulting from the administration of a student assessment
Super User		A class of functional role with an associated REIL role that has special permissions and screen visibility associated to login identification processes. The super user class has multiple types to accommodate the unique business rules and functional requirements of each type. Each type of super user will have a unique name to identify it. Super user types are required to mitigate special circumstances in business process (a.k.a. sysadmin).
Superintendent		A person who directs and manages a school district. For purposes of this document, a reference to a Superintendent includes not only the Superintendent but an Assistant Superintendent and a Delegate as well.
Teacher		Educators instructing students in the schools within each district. Teachers are the Evaluatee's of the Learning Observation Instrument.
Teaching Team Members		Teachers grouped together for the purpose of group level Value Added scores. A teacher may be assigned to one and only one team.
Total LOI Points Earned*		The total number of points that teachers accumulate from their evaluators' ratings of LOI elements on the 0 to 5 scale.
Truenorthlogic	TNL	A vendor system selected through RFP for entering Observation scores for Coaches, Building Administrators, and special groups of teachers in the 2012-2013 school year. It is expected to be the Observation system for all REIL employee groups beginning with school year 2013-2014.
Turnaround Principal		A career pathway position for a principal assigned to a Spotlight School (hard-to-serve) that result in additional compensation.
Turnaround Teacher		A career pathway designation tied to salary augmentation for a specific position at a Spotlight School.

Term	Acronym	Definition
User Management		The authentication feature that provides administrators with the ability to identify and control the state of users logged into a system or network. This includes, but is not limited to, granting access privileges, the ability to query and filter users that are currently logged into the system, manually log out users, and control user login counts and login times.
Value		Number representing the performance level of a particular element in an Observation Cycle Session
Value Added Score	VAS	Numeric value resulting from the application of a mathematical model designed to measure instructional effectiveness
Vertical Scalability		Vertical scalability is the ability to increase the capacity of existing hardware or software by adding resources, such as adding processing power to a server to make it faster.
View		A passive action of looking at information
Weights*		The proportion of the REIL Score that is based on an individual performance measure. Weights are applied to each individual performance measure before they are added together to create the REIL Score.

8 Document Information

8.1 Document Change Record

VERSION HISTORY			
ID	**Date**	**Revised By**	**Reason for change**
0.1	12/11/2012	Rich Schnettler	Initial draft version
0.2	12/20/2012	Rich Schnettler	Updated entire requirements section. See DVT Requirements v#_#.xlsx for master requirements spreadsheet for use with Team Foundation Server (TFS).
0.3	12/27/2012	Rich Schnettler	Updated document after internal ADE IT review with Christa Thompson to complete final DRAFT version ready for review with MCESA.
0.4	01/09/2013	Rich Schnettler	Updated with changes resulting from review (1st half of BRD) with Laurie King, Lori Renfro, and Al Dullum.
0.5	01/15/2012	Rich Schnettler	Updated with changes resulting from review (2nd half of BRD) with Laurie King, Lori Renfro, and Al Dullum
1.0 BASELINE	01/30/2013	Rich Schnettler	Updated with review changes and feedback from Lori Renfro to get a baseline version of this document.
1.0 BASELINE FINAL	02/01/2013	Rich Schnettler	Finalized with feedback received from MCESA. Document should be ready for signoff.

8.2 Contributors & Reviewers

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8.3 Approval Signatures

Upon obtaining all signatures, this document has been approved as the official Business Requirements Document (BRD) for of the REIL Data Verification Tool (DVT) by the business stakeholders.

Following approval of this document, changes will be governed by the project's change management process, including impact analysis, appropriate reviews and approvals, under the general control of the Master Project Plan and according to the Arizona Department of Education Project Management Office policy.

DOCUMENT APPROVALS

Approver Name	Project Role	Signature/Electronic Approval	Date
Kristine Morris	Project Sponsor (MCESA)		
Linda Jewell	Project Sponsor (ADE)		
Christa Thompson	Project Manager (MCESA)		

9 Appendices

9.1 Appendix A – Bibliography

Arizona GITA. Statewide Standard P740-S741: Classification and Categorization of Data. September 14, 2007 < http://aset.azdoa.gov/sites/default/files/media/docs/p740%20data-information%20architecture%20policy.pdf >

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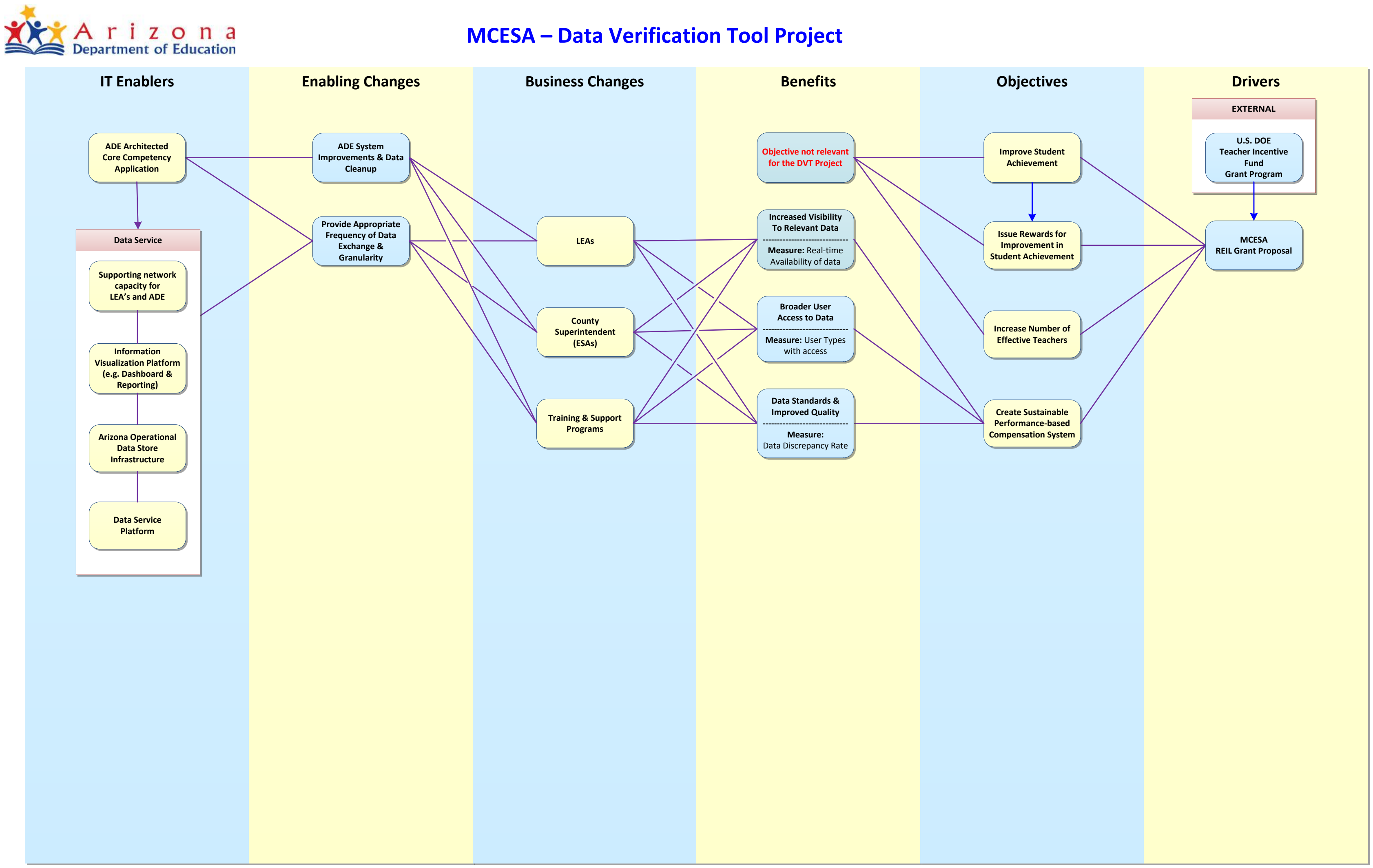
9.2 Appendix B – Benefits Dependency Network Model



9.3 Appendix C – Benefits Analysis

The Benefits Dependency Network model was utilized to identify the key drivers for organizational change, the objectives and the expected business benefits, the business changes, and IT enablers. The linked elements are logically related and form a thread that tells the story of how IT enables the business to change in order to realize the associated, measureable business benefits to justify the financial investment. Each of the subsections that follow provides more descriptive narrative that underlies the model diagram in Appendix B – Benefits Dependency Network Model.

After constructing and vetting the BDN model, further research and exploration of the benefits was conducted in the following ways and illustrated in Figure 11 - Transformative Business Benefits:

1) Benefits types recognized outside of financial benefits (i.e., Quantitative, Measurable, or Observable)
2) Measures for all benefits are identified including subjective and qualitative
3) Evidence is sought for the size of magnitude of the benefit
4) Ownership is selected for each benefit to ensure commitment and aid benefit delivery
5) Risk assessment value assigned to each benefit

Figure 11 - Transformative Business Benefits

Explicitness Degree	Type	Business Benefits		
		Start Doing Things	Continue Doing Things	Stop Doing Things
High	Financial	Centralized Systems, Get data right the first time		Manual processes
	Quantitative	Data governance	Gauge customer satisfaction	Maintaining unsupportable data practices and applications
	Measurable	Provide accurate, timely data	Influence national standards	Multiple data requests
Low	Observable			Reactive mode

There are a number of drivers of organizational change at the ADE with respect to DVT and associated business processes.

1.1.1 Drivers

- **U.S. DOE Teacher Incentive Fund Grant Program**

  This program supports efforts to develop and implement performance-based teacher and principal compensation systems in high-need schools.

- **MCESA REIL Grant Proposal**

  REIL is a five-year initiative designed to be sustainable by participating districts when grant funding ends. Research shows significant change takes three to five years. The belief is that by 2014-15, the last year of grant funding, behaviors and policies in REIL districts will have changed to sustain a comprehensive performance-based management system that develops talent and enhances careers, ultimately increasing the percent of students who graduate college and career-ready.

1.1.2 Objectives

The following objectives are directly linked to the drivers listed in the previous sub-section. Note: While all the objectives of the MCESA REIL Grant Proposal are listed, only the last item is relevant or applicable to the DVT project.

- **Improve Student Achievement**

  By improving student achievement by increasing teacher and principal effectiveness; each Alliance District, MCESA, and ADE can remain in compliance within the guidelines as outlined by the U.S. DOE Teacher Incentive Fund Grant Program and MCESA's REIL Grant Proposal (awarded).

- **Issue Rewards for Improvement in Student Achievement**

  By reforming teacher and principal compensation systems so that teachers and principals are rewarded for increases in student achievement each Alliance District, MCESA, and ADE can remain in compliance within the guidelines as outlined by the U.S. DOE Teacher Incentive Fund Grant Program and MCESA's REIL Grant Proposal.

- **Increase Number of Effective Teachers**

  By increasing the number of effective teachers teaching poor, minority, and disadvantaged students in hard-to-staff subjects each Alliance District, MCESA, and ADE can remain in compliance within the guidelines as outlined by the U.S. DOE Teacher Incentive Fund Grant Program and MCESA's REIL Grant Proposal.

- **Create Sustainable Performance-based Compensation System**

  By creating sustainable performance-based compensation systems each Alliance District, MCESA, and ADE can remain in compliance within the guidelines as outlined by the U.S. DOE Teacher Incentive Fund Grant Program and MCESA's REIL Grant Proposal.

1.1.3 Benefits

The following business benefits are directly linked to the objectives listed in the previous sub-section.

- **Increased Visibility To Relevant Data**

  By achieving the benefit of increased visibility to relevant data the objective of creating a sustainable performance-based compensation system may be realized.

  Measurement: Real-time Availability of data

  - Provide capabilities to ensure data is entered correctly the first time
  - Provide capabilities to automatically feed data from one system to the next without requiring manual human intervention other than possibly an audit review

- **Broader User Access to Data**

  By achieving the benefit of broader user access to data then the objective of creating a sustainable performance-based compensation system may be realized.

  Measurement: User Types with access

  - Provide capabilities for teachers, building administrators, superintendents, HR administrators, and MCESA administrators to access data that is appropriate to their role and position within the organizational hierarchy

- **Data Standards & Improved Quality**

  By achieving the benefit of data standards in place and improved data quality then the objective of creating a sustainable performance-based compensation system may be realized.

  Measurement: Data Discrepancy Rate

  - Provide capabilities for the automated collection of data using seamless processes that make it available using standard formats and conventions
  - Provide efficient workflow capabilities to minimize the labor hours required by personnel to access, verify, and approve their data

1.1.4 Business Changes

This section lists the business process changes.

- **LEAs**

  By enabling business changes to the LEAs then the benefit of increased visibility to relevant data, broader user access to data, and data standards in place with improved data quality may be achieved.

- **County Superintendents (ESAs)**

  By enabling business changes to the County Superintendents then the benefit of increased visibility to relevant data, broader user access to data, and data standards in place with improved data quality may be achieved.

- **Training & Support Programs**

  By enabling business changes in Training & Support Programs then the benefit of increased visibility to relevant data, broader user access to data, and data standards in place with improved data quality may be achieved.

1.1.5 Enabling – Business Changes Linkage

This section lists the enabling changes and links them to their associated business process changes.

- **ADE System Improvements & Data Cleanup**

  ADE system improvements & data cleanup must be completed in order to effect business changes to LEAs, ESAs, and Training & Support Programs since they each will all rely on improved application functionality, workflow management, data accuracy, etc.

- **Provide Appropriate Frequency of Data Exchange & Granularity**

  Appropriate frequency of data exchange & granularity must be completed in order to effect business changes in LEAs, ESAs, and Training & Support Programs since they each rely on the delivery of the right amount and level of data at the right time to the right audience.

1.1.6 IT Enablers

The following Information Technology enablers are necessary to enable changes to the business in order and ultimately achieve the benefits and objectives linked to their respective drivers

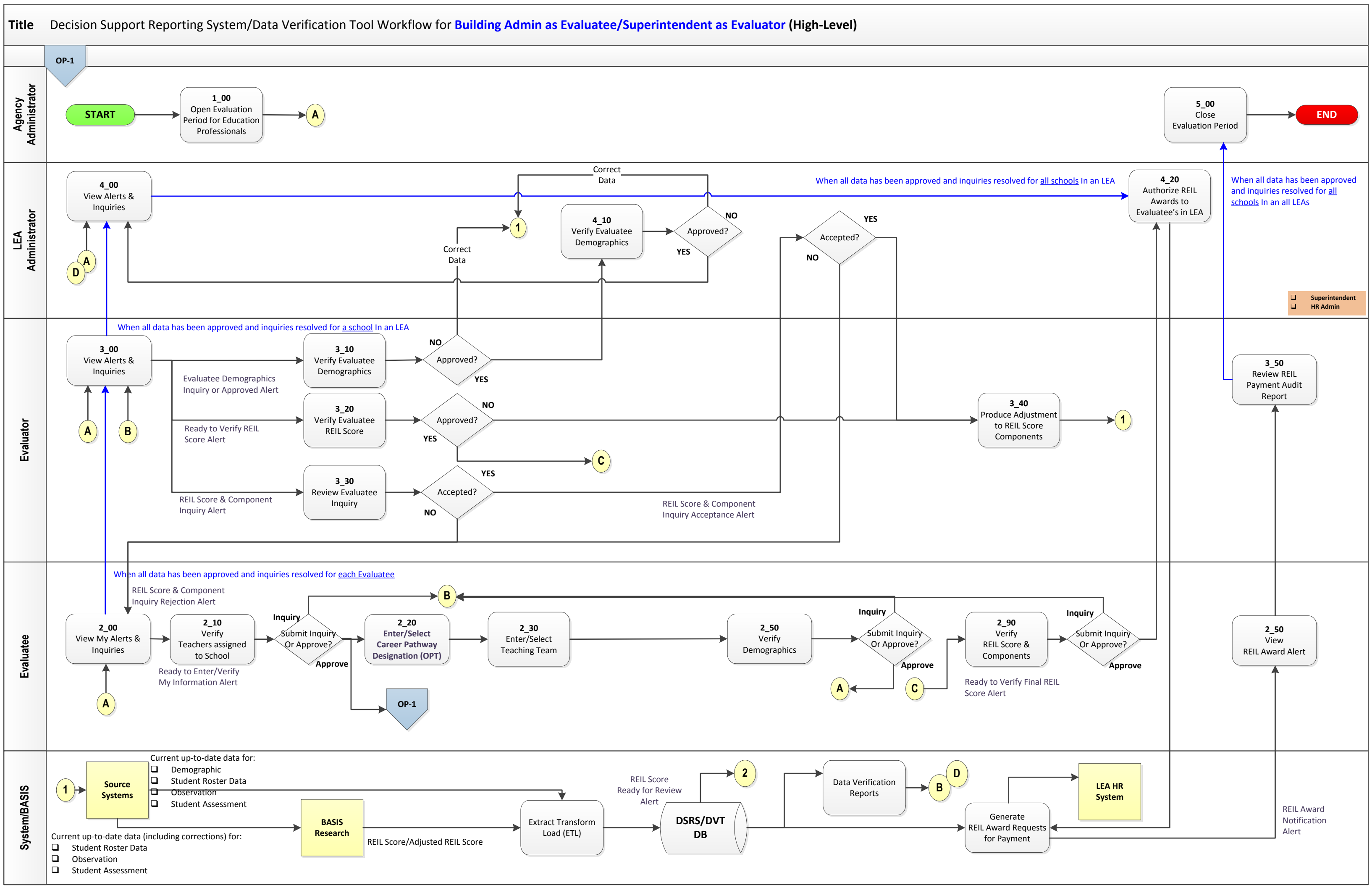
- **ADE Architected Core Competency Systems**

  ADE architected core competency systems refer to central foundation and support systems that will undergo a significant transformation or replacement as part of the AELAS program.

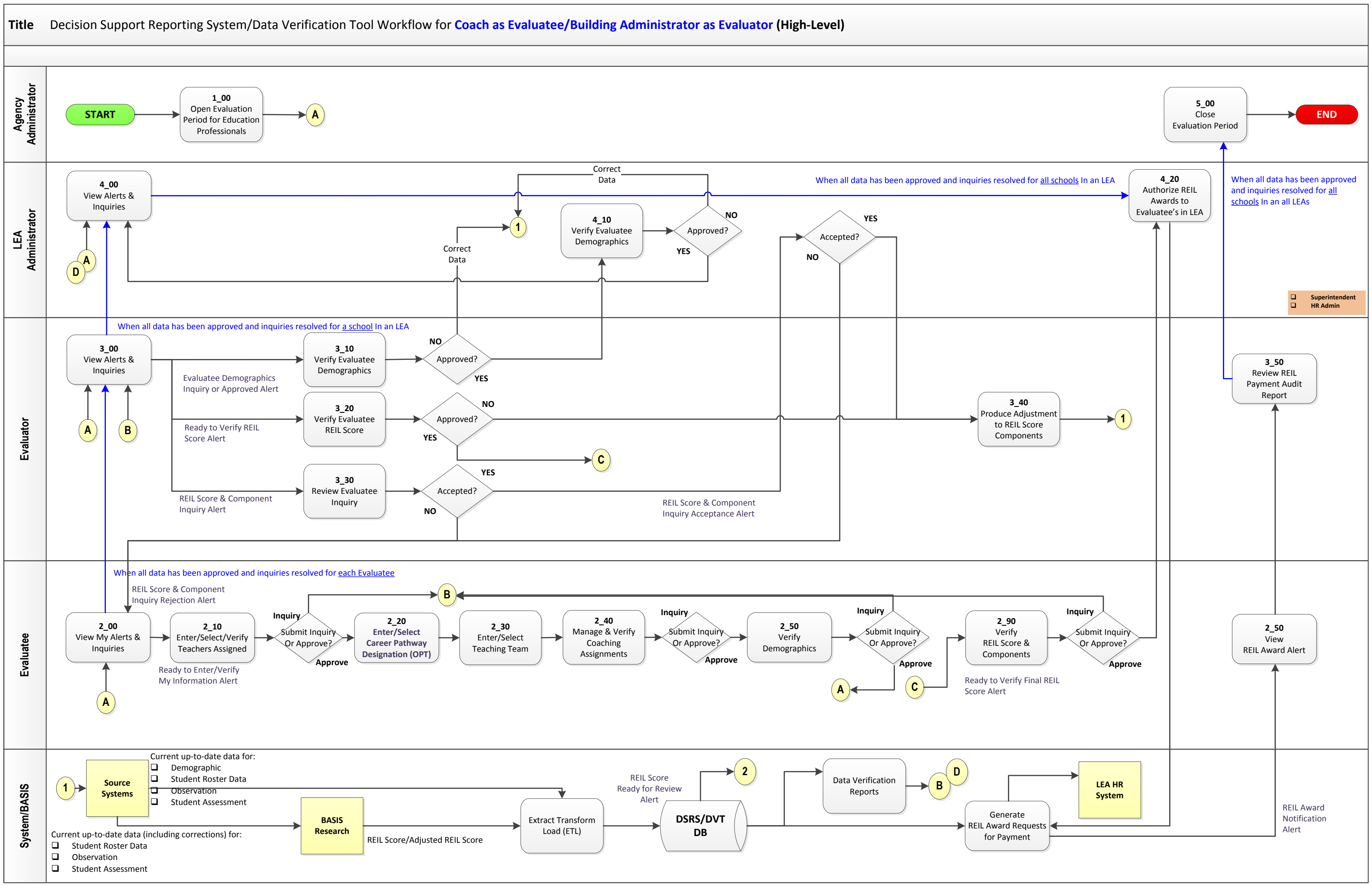
- **Data Service**

  The Data Service generally refers to the ADE central data warehouse system known as the Arizona Education Data Driven Decision Systems (AED^{3}S) but which includes a data management component that allows the exchange of data between systems used by the LEAs and the ADE. Note: Data for DSRS/DVT may be collected and exposed using an alternate approach over the near-term.

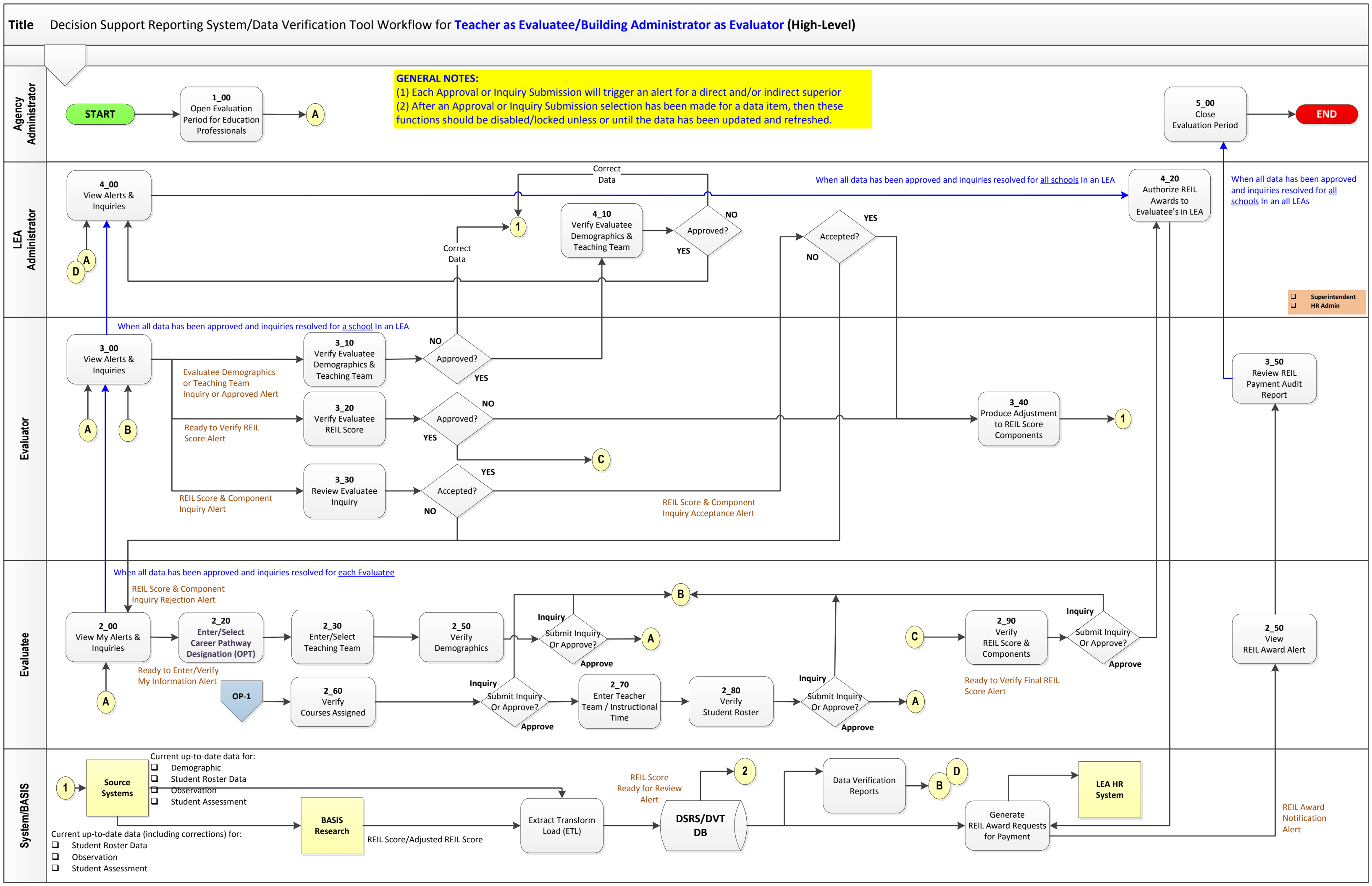
9.4 Appendix D – REIL Score Review & Award Disbursement Workflow for Building Admin



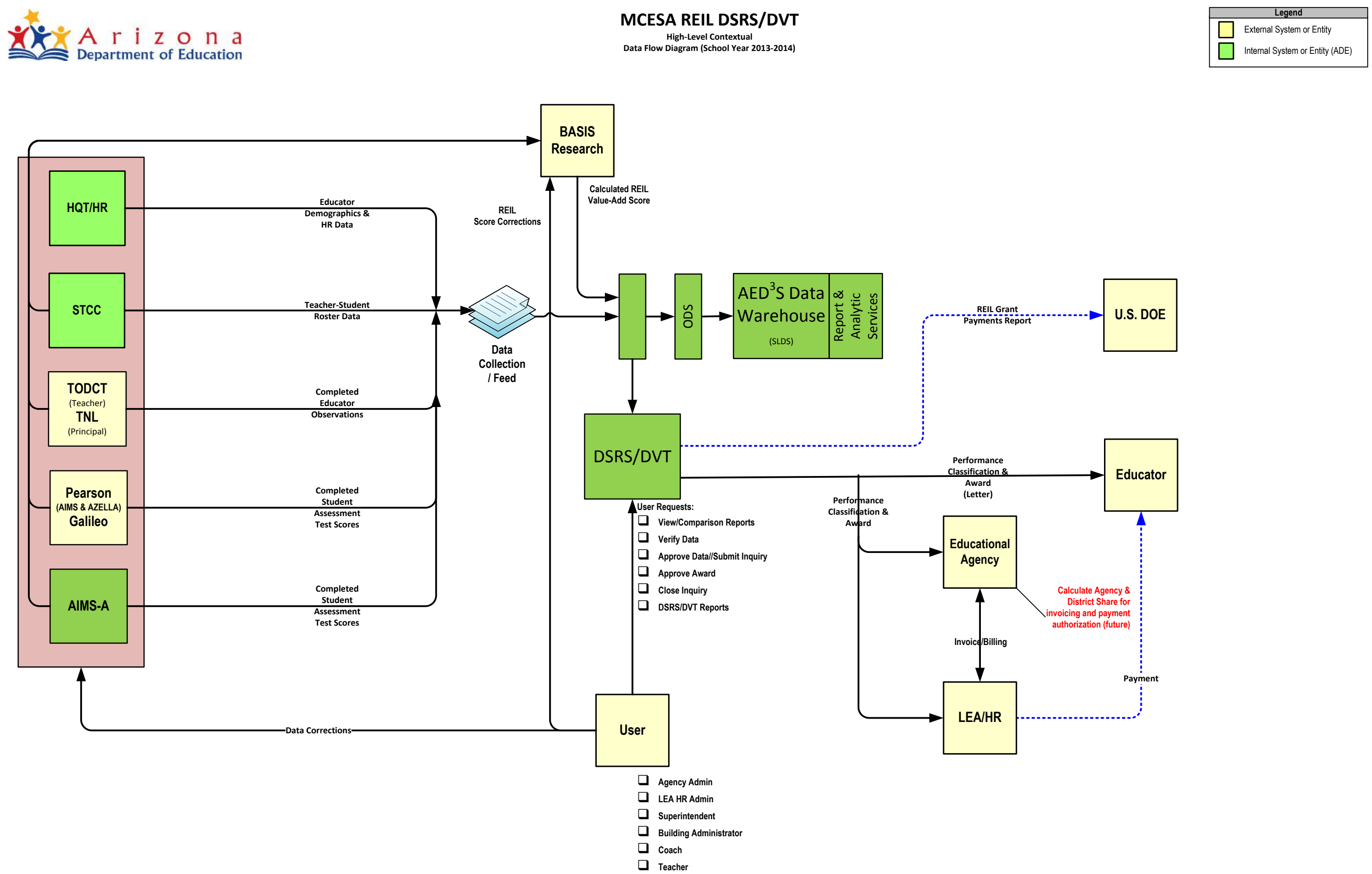
9.5 Appendix E – REIL Score Review & Award Disbursement Workflow for Coach



9.6 Appendix F – REIL Score Review & Award Disbursement Workflow for Teacher



9.7 Appendix G – DSRS/DVT High-Level Contextual Data Flow Diagram



9.8 Appendix H – Estimated User Volumes

	District Name	Type	# of Schools	# of School Leaders	# of Teachers	# of Coaches
	Alhambra	REIL	15	30	794	Unknown
	Gila Bend	REIL	2	5	27	3
	Isaac	REIL	12	31	494	14
	Nadaburg	REIL	2	4	52	4
	Tolleson	REIL	4	12	154	10
	Arizona Department Of Juvenile Corrections*	REIL TNG	2	2	36	5
	Balz Elementary School District	REIL TNG	5	5	167	10
	Maricopa County Regional School District	REIL TNG	4	8	33	5
	Mobile Elementary School District	REIL TNG	1	1	5	1
	Phoenix Elementary School District	REIL TNG	14	14	450	30
	Roosevelt Elementary School District	REIL TNG	19	30	530	50
	Wilson Elementary School District	REIL TNG	2	4	76	5
	Learning Matters	REIL Extend	21	34	606	Unknown
	Laveen*	REIL Extend	6	6	218	Unknown
Totals	**14 Districts**		**109**	**186**	**3642**	**137 (est.)**

* - Out of Scope for Phase 1